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SKETCHING WITHOUT A MASTER

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SKETCHING

WITHOUT A MASTER

BY J. HULLAH BROWN

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CONTENTS.

CHAPTER I.

INTRODUCTORY 11

CHAPTER II.

MATERIALS.

Ink—Nibs—Paper and Boards—Pencil—Rubber—Penknife and Scraping Tool 24

CHAPTER III.

PEN CONTROL.

Two Positions of the Hand—Strength of Line—Shading by Strength of Line—The Preliminary Pencil Drawing—Tone of Linework—Tonal Values—Variation of Strength during a Single Straight Line 37

CHAPTER IV.

LINEWORK IN CAST SHADOWS.

Factors which influence the Direction of Linework—The Direction of Light—The Contour of the Model—The Composition of the Sketch—Direction of Line as exemplified in the Work of Left- and Right-handed Draughtsmen—The Amount of Detail to be introduced into Shadows 54

CHAPTER V.

PEN DRAWING.

The Process of Simplifying and the Process of Elaboration—Translating the Model into Terms of Linework—Retaining the Relative Tonal Values while elaborating Detail . . . 65

CHAPTER VI.

FOLIAGE.

Detail in Foliage—Tonal Methods of Treating Foliage regardless of Detail—Modelling—Direction of Line—Cross-hatching . . 88

CHAPTER VII.

CROSS-HATCHING.

The Quality of Tone—Direction of Line in Cross-hatching as influenced by the Shading and Modelling of the Object—The Effect of Crossing the Lines at Different Angles—The Shape of the Whites in Cross-hatching—Cross-hatching in more than Two Directions 104

CHAPTER VIII.

THE INFLUENCE OF TEXTURE AND COLOUR UPON LINEWORK.

Linework and Colour—Astigmatism and the Effect of Contrasted Directions of Lines—Texture an Additional Function which the Lines have to Fulfil—Texture the Interpretation of Abstract Qualities 115

CHAPTER IX.

SKETCHING FROM NATURE.

A Recapitulation—Freehand Pen Drawing and the Preliminary Pencil Drawing—Pre-visualizing the Pen Drawing—Compositional Tonal Relations—Tonal Scale—Relative Tonal Values—Direction of Line—Strength of Line—Composition—Methods of Building up a Sketch—Style 131

CHAPTER X.

THE THEORY AND PRACTICE OF AERIAL PERSPECTIVE AS APPLIED TO PEN AND INK.

Relative Tonal Values in one Atmospheric Plane—Relation of Tones in Different Vertical Planes—The Black and White Foreground—The Gray Distance—The Atmospheric Tone Chart—Tonal Scales, and Ratios of Contrast—Technical Means of Indicating Atmospheric Perspective 167

CHAPTER XI.

SKY TECHNIQUE.

The Three-Tone Scheme—The Blue Sky Tone—The White Cloud Tone—Toned Clouds 195

CHAPTER XII.

AMBIENCE.

The Normal Scale and the Ambient Scale—A Lesson from Wood-engraving—Facility—Drawing in Outline—The Value of Blacks—The Value of Whites—A New Aspect of Pen Drawing 226

CHAPTER XIII.

WORKING FOR REPRODUCTION.

How to Adjust the Dimensions of a Drawing for Reduction in Size—Technical Points to be considered in Working for Reduction—The Amount of Reduction 258

CHAPTER XIV.

HINTS ON THE STUDY OF PEN-AND-INK DRAWINGS . . 269

SKETCHING WITHOUT A MASTER.

CHAPTER I.

INTRODUCTORY.

IT is a matter of extreme gratification to many thousands of pen-and-ink enthusiasts that their medium is no longer denied an honourable place amongst the select company of recognized art mediums. Pen and ink is still not entirely free from some antagonism, and a little guerilla warfare continues in isolated districts; but the work of the great pen-and-ink draughtsmen has won the main battle, and the beautiful standard of pen and ink waves calmly and serenely in graceful lines and beautiful curves on one of the higher pinnacles of art.

Although pen and ink as an art medium can never be allowed the exalted position which rightly belongs to colour

and although the work of even the greatest pen-and-ink draughtsmen can never claim a position of equal rank with the work of the great painters, none dare deny that our medium is capable of adequately expressing ideas of noble conception and of exquisite beauty, of true pathos or humour, and of sunshine and ambience ; and we can never cease to wonder at the manifold variety of the effects obtainable through such simple elements as those which form its basis. Taking our pen in hand, it is as though we start out with a piece of dry wood which soon becomes transformed into a magic wand. Pen-and-ink drawing is peculiarly fascinating and absorbing because it is for ever unfolding unexpected and delightful possibilities. These new discoveries, and the exquisite results which may be obtained by such simple means, engender a buoyancy of heart, a keenness and alertness of mind, an enthusiasm and affection which are the peculiar characteristics of workers in the pen-and-ink medium. We must always stand aghast before the inexhaustible possibilities and the infinitesimal intricacies of colour work ; the devotion of a lifetime is needed to allow of more than the fringe to be approached ; but with pen and ink it is different. Not that the draughtsman's ambitions are limited ; not that his subject can ever be exhausted ; but that there is a greater possibility and hope of achievement in relation to the fullest scope of the subject, and much may be achieved without a life of toil. The pen-and-ink draughtsman, like Isaak Walton with his rod and line, loves his medium with an ardent enthusiasm which none can deny him.

This little book is for the enthusiast. It was begun years ago to help a youthful friend who essayed his first attempt at working in the medium seated beside me in front of a gorgeous cathedral.

I well remember how he counted the layers of stone, and

informed me that there were about one hundred and eighty; how, having drawn only about sixty layers, he found himself at the bottom of his sheet of Bristol board; and how he sobbed silently and bitterly when, in answer to his query as to what he should do, I told him to turn over the sheet and go on down the other side.

It was the desire to solve some of the difficulties thus presented to me which first prompted me to probe into the drawings of pen-and-ink draughtsmen, and to make a serious attempt to evolve from their masterpieces any fundamental principles in technique from which it might be possible to form something approaching a theory and practice of pen-and-ink landscape drawing.

As in all other arts, rules of technique can only be accepted when they are evolved from the practice of the masters of the art. I have spent many years in endeavouring to evolve such rules; and while it would perhaps be better to say that no hard-and-fast rules relating to pen drawing can be evolved or formulated so that they should form the basis of the study of pen-and-ink drawing, in the same way as the strict rules of harmony and counterpoint form the basis of the study of music, there are undoubtedly certain underlying principles from which something approaching rules of technique may be evolved, and which the average student might be quite incapable of evolving for himself. The present book is the outcome of this research. Nevertheless, we will not claim to have formulated any single rule which must not be broken—any attempt to do so would inevitably fail; but we earnestly hope and believe that a careful perusal of this little book will help the average student in his critical research into the technical methods employed by the great pen-and-ink draughtsmen, as well as in his attempts at original interpretations from Nature.

We have heard the advice cynically or seriously given to

those about to take up pen-and-ink drawing that they should do it with a match and a tin of boot-blacking. With the deeper significance of this advice I heartily concur. It is the point of view of the colour man, who does not fully appreciate the fact that pen and ink is a *tonal* medium. But the advice is not really relevant, as the two subjects—pen and ink and match and blacking—are quite distinct. It is a universally recognized fact that in working in two different mediums each will influence our perceptive powers, and strengthen our technique in the other. Pen-and-ink landscape drawing is a complete and beautiful study in itself; and if the pen draughtsman adopts another medium as a "secondary" subject, it had better be water- or oil-colour painting—that is, a medium capable of a flat wash—and not one so closely related as match-and-blacking drawing, or even etching. The student will be well advised to work occasionally in matches and blacking, provided that it is treated seriously as a tonal medium; but if the drawings so executed are intended for reproduction in print by the black-and-white process, he should endeavour to procure a blacking which is guaranteed not to shine, otherwise the print may show serious faults. For these reasons, and if the student desired to work in a freak medium, dubbin and a toothbrush would be better than matches and blacking, as they would allow of the use of a flat wash.

Pen and ink has been viewed with suspicion, not so much because of the absence of colour, as because it is incapable of flat washes and half tones.

But if pen and ink were linework pure and simple it would for ever have remained outside the pale of art. It might have lingered on as a medium for expressing slight or comic subjects; but the idea of linework is apparently so diametrically opposed to Nature's great tonal scheme that there is some excuse for the attitude of those who would wish to deny it a place as

an art medium. But, to the initiated, pen and ink is a tonal medium, and it is only as a tonal medium that it is raised to the high position which it holds. This is the primary attitude which we adopt throughout this little work. The technical aspect of the medium is, however, concerned with lines—their strength, direction, length, and quality—and with the underlying principles which govern their application; but all such linework is a means to an end, and in landscape drawing linework must always be considered as subservient to tonal values.

Pen and ink lends itself to three distinct styles of drawing —Decorative, Figure, and Landscape. To a great extent the details introduced and the methods employed are similar in all three styles, but the broad lines of demarcation are strongly pronounced.

It is a constant source of wonderment to me that draughtsmen are rarely successful in more than one of these styles. But it certainly is so. Moreover, it is only in the greatest draughtsmen that we find any but a small range of achievement as regards choice and treatment of subject; and many draughtsmen not only contain their work within one only of the three styles, but they limit themselves to one or two aspects of that style—some limiting themselves to what amounts to little more than one subject.

This limitation in choice of subject, and in the manner of treating the subjects chosen, cannot wholly be accounted for by skill or the absence of skill in draughtsmanship alone, because indisputable evidence exists showing that men whose skill in architectural drawing is unimpeachable have yet failed in their attempts to introduce figures or in decorative work. Some landscape draughtsmen have even gone so far as to have their figure work drawn in for them. But while landscape draughtsmen are frequently unsuccessful in their attempts at figure work, figure draughtsmen are frequently very

meagre in their landscape work. These facts are sufficient to show that landscape drawing is a complete subject in itself. Nevertheless, the principles which we enunciate will be found applicable to a great diversity of styles, and just as the landscape draughtsman should study decorative and figure drawing, so should the decorative and figure draughtsmen study landscape drawing, for the distinctive characteristics and methods of each of the styles are often closely interwoven, and they will not be found to be so very far removed in their fundamental principles.

Our research has extended to all styles of drawing, and has in no way been restricted to landscape drawing. In treating such a subject as that of aerial perspective, for instance (a subject which might appear to belong exclusively to landscape drawing), we have had before us a large collection of pen-and-ink drawings, etchings, and engravings of a great variety of subjects, of different periods and nationalities, and of very varied styles. Such a collection showed the principles enunciated in that chapter applied not only in landscape but in figure drawing, still life, interiors, and even in purely comic or grotesque subjects. So that in following out the suggestions appertaining to each branch of technique, the student is free to visualize his own examples according to the style of drawing or the nature of the subjects which he chooses. He may visualize them merely as they are presented here, or according to the style of the particular school of draughtsmen towards which his inclinations lean; or, better still, according to his original powers of perception and interpretation. This being the case, no apology is necessary for the fact that all of the illustrations are original, and not chosen from the works of the masters. The whole field is open for the student to carry out original research; and the value of this book will be considerably lessened if the reader fails to carry out

our advice of searching diligently for the application of each technical point in the work of the best pen-and-ink men. It is from their work that we have evolved the suggestions, and it must be their work which the student should study for the most perfect application of them.

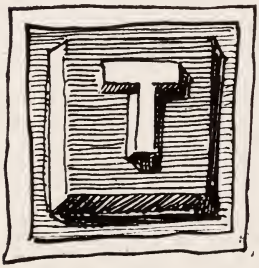
While we may safely say that the subject of colour and its technique is inexhaustible, the elements of pen and ink are surprisingly simple. They consist entirely in the variation in the strength, direction, and length of a line. It is the subtle combination of these apparently simple variations which enables the draughtsman to suggest form, texture, atmosphere, colour, and ambience.

But in spite of, or by reason of, the simplicity of the elements of pen-and-ink drawing, their proper application in pen-and-ink landscape sketches is far from being simple. Thus it might appear that a *line* would be the obvious means of indicating the outline of an object, whereas for this purpose the line should be used very rarely indeed. As a mere outline the line should be used only under compulsion or for special purposes; and even if a single line is used for purposes of outline, it should, where possible, be thought of as representing the shadow of the edge rather than the outline of the object.

Considering the extreme simplicity of the elements of the medium, we may well wonder at the diversity of styles of the many workers in pen and ink. This great diversity alone indicates the vast possibilities of the little line that we shall come in time to love. The variety of styles is the outcome of the artists' subtle powers of perception and interpretation, of individuality of treatment, or of peculiar and characteristic mannerisms. We are not, however, concerned with mannerisms, and disclaim all wish to lead the student into any particular style or "school." But in much the same way as the copy book presents a formation of letters from which

individuality in handwriting may spring, and from which a very great diversity of styles develops according to the character and temperament of different writers, so in this book we have endeavoured to find out some underlying principles which govern the treatment of the best men, and have aimed at laying the foundation of a pure technique on which the individual may build, and eventually assert his artistic faculties according to his original conceptions as he becomes master of the medium, and as his artistic outlook upon the art of sketching develops and expands.

In treating our subject we must presuppose that the reader either has a gift or natural aptitude for drawing, or that he has studied perspective and other kindred aspects of the mechanical side of draughtsmanship. The very limitations of the elements of our medium demand a facile skill in draughtsmanship, accuracy of treatment, purity of technique ; for while in colour work a series of happy chances may produce an exquisite result, in pen and ink accident generally spells disaster. We must therefore presuppose that the reader can draw.



THE methods of teaching drawing pure and simple have undergone many and important changes during the past few years. Less than a generation ago we toiled with a drawing from the flat, and after much labour finally reproduced the copy with greater or less fidelity.

This system has now been superseded by the more enlightened method of painting or modelling in tone, either in chalks or in water colour, from natural objects. The results obtained even from young children have in one sense fully justified the adoption of the more enlightened system. We see children painting

away from their bananas, potatoes, lace, and coffee-pots, and producing results which must have entailed a valuable amount of individual observation. Nevertheless, there is in our present system of teaching a serious weakness which needs to be guarded against and rectified—namely, the loss of real, accurate drawing. Much of the colour and tone work done by young people at the present day is hopelessly marred by faulty drawing, while the colour effects are too frequently the result of chance. The results possess qualities of artistic beauty and apparent technical ability which the young worker's brain did not conceive or his hand control. We find a serious inability to reproduce even a simple piece of colouring. This inability to reproduce represents weakness in the technique of the medium.

In pen-and-ink drawing the power to produce the right line in the first instance, and to reproduce any kind of line at will, is essential. Lack of skill in drawing will seriously hamper freedom of expression.

However much we may despise the old School of Art or Secondary School course—which included perspective drawing, drawing from the flat, from cones, cylinders, and cubes, from plaster casts, still life, and from classical models and sculptures—it represents a course of searching and analytical drawing which none but the naturally gifted artist dare despise ; and we must view with suspicion any scheme of teaching drawing which aims directly at the freedom and fluency of the experienced brush or pen, and which ignores that guiding and refining mill through which every one must pass unless he is a born genius.

If the draughtsman is to be more than a mere plagiarist he must in the end work out his own artistic salvation, and the most any book or course of drawing can do is to lay the broadest and purest foundation on which the draughtsman may build his own structure.

We would therefore recommend the landscape student to

learn all he can from the cylinder and cube, to study perspective, to achieve accuracy in draughtsmanship, to consider accuracy in draughtsmanship as important in drawing as true intonation is in playing the violin. It will represent useful equipment in the battle with the technique of his medium, no matter what branch of pen-and-ink drawing he may adopt ; it will allow of an ultimate freedom of expression which is impossible without it.

The question of the development of such powers of perception as will result in the production of finished original drawings direct from Nature or from the imagination is distinct from and beyond this skill in draughtsmanship. These perceptive powers will to some extent develop concurrently with the increasing power of technique and expression ; but the heights to which the draughtsman will attain in original work are dependent upon his own natural ability.

A SIGNIFICANT distinction must be drawn between the ability to copy from pen-and-ink drawings and to achieve original work from Nature. To do either successfully implies a gift for pen draughtsmanship ; but the latter achievement is of rarer occurrence and of vastly greater merit than the former. With copying pen-and-ink drawings we are only concerned in this book in so far as it implies diligent search into the technique of our medium as displayed by different draughtsmen.

For purposes of such research copying is not only per-

missible but even essential; but, apart from such research, copying is to be strongly deprecated. In fact, the work of a master pen cannot be successfully copied, for if we copy every line faithfully we cannot but fail to reproduce the individuality of touch; while to attempt merely to reproduce the effect of the sketch is not, strictly speaking, copying—it is imitating, which is a very different thing to copying, and a very much more valuable practice. To imitate successfully implies control of technique and individuality of touch in the imitator; but to copy slavishly does not imply any individuality, and the student should only allow himself to copy either for purposes of technical research or as a test of his power to reproduce preconceived tonal qualities.

Copying, or rather reproducing, from memory is, however, a commendable practice at all stages of the student's progress.

The question will certainly arise as to the advisability of working from photographs. Such a practice has its dangers, but it has its value also. Its usefulness lies in the possibility of collecting a number of suitable subjects from which we may work on wet days or in the evenings, or during the winter months when it is not possible to draw direct from Nature. Another important factor which might very appreciably help an inexperienced student is to be found in the fact that the photograph automatically performs the essential process of reducing the colour subject to terms of black and white. The photo being in half tones will in no way interpret the subject in terms of linework. In fact, in so far as it will generally show less detail than the original subject, it will offer fewer suggestions of schemes of linework than the original subject; so that in working from a photograph half the battle—namely, that of reducing the colour subject to its relative tones in black and white—is over; and the draughts-

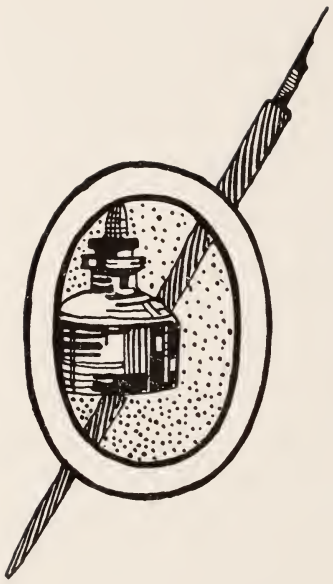
man, freed from the necessity of performing this process, may more readily centre all his energies on translating his tonal subject into terms of linework. This is one of the legitimate uses to which photographs may be put, and they serve excellently as offering opportunities for the student to practise this process.

In two important respects photographs are to be mistrusted. First, photographic perspective is not always correct. The relative sizes of near and distant objects as shown in a photo are not always as the eye sees them. Objects in the foreground appear larger and objects in the distance appear smaller in the photograph than in a sketch correctly drawn. Secondly—and this is of more vital importance—the relative tones are rarely true to Nature, partly because colours have unequal actinic power—which is well illustrated when a deep blue appears in the print as lighter in tone than a bright red—and partly because the photo will lose detail and, consequently, tone value, either in the high lights on account of over-exposure, or in the deep shadows as the result of under-exposure.

But while the photograph should generally be mistrusted in these respects, it may be used as a guide to tonal schemes (it is frequently very faithful in its suggestion of atmospheric perspective), as a supplement to rough outdoor sketches, or as a means of studying particular details. With regard to the latter, the student might well make a collection of photographs illustrative of any particular detail under consideration. Such a collection supplementing original study from life cannot fail to be of educational as well as artistic value. Supposing, for instance, that we are studying the linework treatment of an eye or a hand, or of foliage, photographs will present an extensive selection of models which can be compared and analyzed in a few minutes. By these means a few original

studies from life may readily be supplemented by hundreds of photographic examples. Speaking generally, photographs should only be called in as an aid to special study, and should never be relied on as the original source of inspiration.

The original source of inspiration should come from Nature herself; and, equipped with a sound technique, which we believe may be acquired by a few years' earnest study on the lines suggested in this book, the draughtsman should experience many enjoyable hours with Nature and his pen and ink.



CHAPTER II.

MATERIALS.

F the many kinds of ink on the market, only a few possess the necessary qualifications which are requisite in a good drawing ink. The draughtsman will find all he will require in either Higgin's American Ink or Hardmuth's Indian Ink, Wolff's Chinese Ink, Reeves' or Rowney's, or Winsor and Newton's Fixed Indian Ink.

These waterproof inks are suitable for use in pen drawing; first, because they are black, and, secondly, because they do not shine when dry. They are black in contradistinction to blue-black. A blue-black ink is one which *writes* blue and *dries* black. For purposes of writing, inks which change colour in this way are quite satisfactory; but they do not claim to be suitable for pen-and-ink drawing, and it is inadvisable to use them for that purpose.

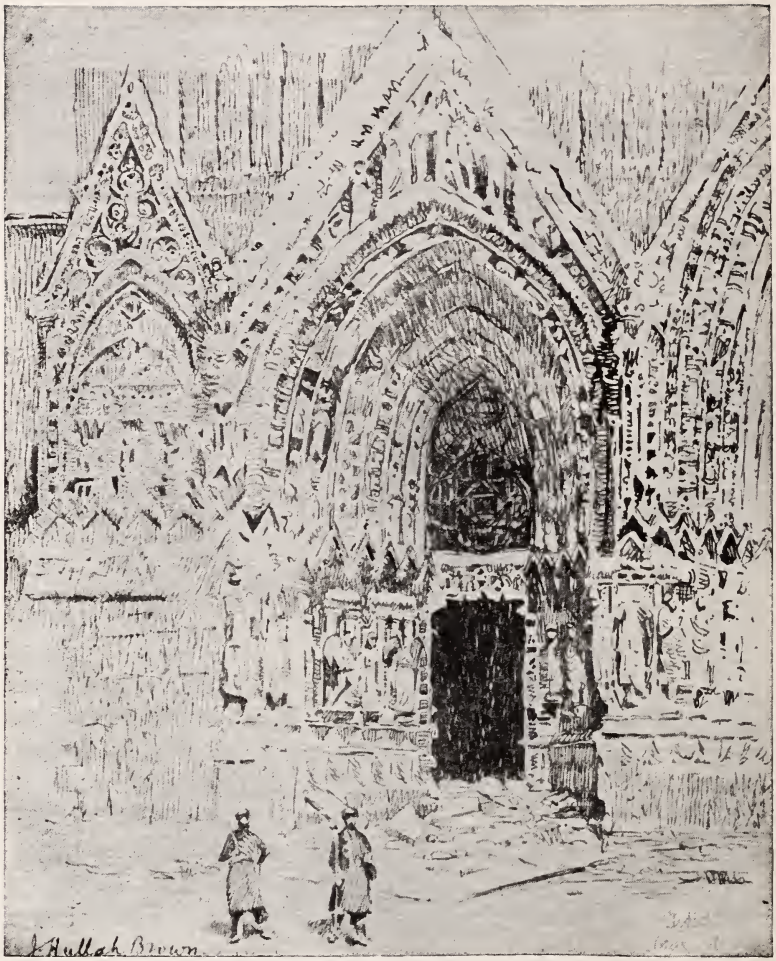
The importance of drawing with an ink which does not shine when dry is felt principally when the sketch is reproduced in print, for any line which shines in the original will show a fault, or will not appear at all, in the print.

Working for reproduction in black and white precludes the use of diluted or coloured inks ; for, presuming that the printer uses a black ink, every line in the print will be black. That is to say, the faintest lines drawn with diluted ink, or lines drawn with coloured ink—in fact, any mark on the original of any colour or shade *which prints at all* will print black.

Coloured or diluted inks should be reserved for use on original studies not intended for black-and-white reproduction, but their use by the beginner is not recommended. If diluted ink is used to produce gray lines, its use should be considered as a means of producing a certain "tonal" or atmospheric effect which is afterwards to be produced in a legitimate way by the proper manipulation of *black* lines.

There is a process of reproduction known as the half-tone process, and, as its name implies, this gives in the print gradations of tone between black and white even in the individual line. By this process the gray tone of individual lines drawn with diluted ink, or with pencil, chalk, or charcoal, can be reproduced. If the drawing is intended for reproduction by this half-tone process, chalk, charcoal, pencil, or even diluted ink may be utilized as the means of producing the required effect. If the draughtsman wishes to work in half-tones, pencil, chalk, or charcoal is far better suited to its treatment than the pen is. It is a fairly common practice to use chalk or charcoal in combination with ink when the original is drawn on a very large scale, and allowance made for an enormous reduction in size in the print. With the advanced draughtsman this practice is certainly to be encouraged. Such drawings will be done on a rough surface paper or board, and reproduced by the half-tone or black-and-white process.

In this work we deal only with black ink and black lines, and all tones intermediate between black and white will be



DRAWN WITH DILUTED INK. (*From a photo.*)

obtained by the use and combination of lines which are individually black.

It was a common practice some years ago for draughtsmen to compound and mix their own inks; but the inks on the market to-day are of such excellent quality that this practice is quite unnecessary.

There is a limit to the length of time for which an uncorked bottle of ink will retain its original blackness. Some of the good black inks, which are excellent when the bottle is first opened, may be found to have turned to a brownish colour if exposed too long to the air, and especially to the light of the sun. This deterioration may take a year or two, but it is advisable to keep the bottle tightly corked when not in use, and to stir the ink or shake the bottle if it has been standing unused for some considerable time.

Nibs.—In selecting a nib for pen drawing it must not be judged purely by its size or the fineness of its point, but by its pliability and its power of expansion in producing the greatest range and gradation of thickness. The nib should be capable of a great range of strength of line—from a delicate stroke up to one of considerable thickness.

Gillott's Lithographic Crow Quills are pre-eminently suited to pen drawing. The all-round possibilities of their No. 659 make it an excellent nib for general use in work of ordinary dimensions. It may be used freely in direct linework, when the nib is made to open freely on both sides of the slit; it also allows of freedom when used from side to side.

The Gillott No. 290 is another excellent nib. The point is hand-finished, and it is beautifully soft in its use.

The kind and nature of the nib used may have to be changed or varied according to the nature of the surface of the board or paper. While a rigidly made nib with a fine point may be used freely on a hard, glazed surface, drawing on a rough

PENCIL SKETCH.

cartridge paper, or on a board with a " bite " in its surface, will require a more pliant nib, with possibly a more rounded point. If the point is too hard, or the nib too rigid, it will not allow of freedom of use, especially on the up strokes, on a rough surface. It will even break into the surface of the paper, and in so doing will often result in the nib itself breaking.

The kind and quality of the nib best suited to any individual draughtsman will depend upon the style of work which he develops as he comes to assert his own individuality, upon the size of the original drawing, and upon the amount of reduction in size when the original is intended for reproduction and reduction in print. It would be a mistake to curb the development of individual style by a restriction to the use of any one nib, especially if the nib chosen is a small one. It will equally be a mistake for the student to change from one nib to another without first making a serious attempt to find out the real possibilities of the nib chosen for the time being.

If the student finds difficulty in his early efforts in working at considerable strength of line with a nib as fine as the Gillott 659, or if his work shows signs of feebleness of stroke or a tendency towards " niggling," the larger Gillott No. 601 EF may be adopted for a time, or even permanently, with advantage.

It is not unusual to use two sizes of nib on a single sketch, and far from there being any objection to such a practice, it often proves a valuable experience in studying the value of contrasted thicknesses of line. Even a nib the size of a broad-writing J or a goosequill may be requisitioned. Such a practice will undoubtedly tend to improve the strength of line when one returns to the use of the finer nib. It will even be essential if a great contrast of strength of line is required on an original drawing not intended for a large reduction in size in the print.

If two nibs are used on a sketch for the purpose of getting a stronger contrast of line than can be readily obtained by the use of one nib, the finer nib should generally be used first, and the stronger work with the broader nib placed on later.

But if the worker by diligent practice, and acquiring the habit of using them boldly, succeeds in utilizing the possibilities of the Gillott 659 or 601 EF freely, he will find either of them capable of as great a range of strength of line as will usually be required on any one sketch.

While the nib chosen should admit of a considerable range of strength of line, it need not admit of a finer line than the worker's individual style demands. That is to say, the draughtsman should work with the broadest-pointed nib which adequately fulfils all the demands of his individual style. Nevertheless there is an important difference in the quality of two lines of equal strength, one of which is the normal stroke of a broad nib, the other the "opened" stroke of a fine nib. In the first case the lines will be "blunt-ended" and of uniform thickness, while in the second case the lines will probably be tapered at each end. These latter lines have a "dazzling" quality, while the former produce a duller tone quality.

Every care should be taken of the nib by cleaning and protecting from damage. Nibs which at first may seem hard and sharp-pointed will often improve in pliancy and smoothness with usage; but, being almost *human*, they will reach their prime, and subsequently decline. When a nib has once reached its highest degree of mellowness and pliancy it should be treasured as a valuable asset. Nibs can often be "softened" or altered in their character by being rubbed on an oil stone. It is always advisable to test a new nib, and "break it in" if necessary before using it on a sketch. When embark-

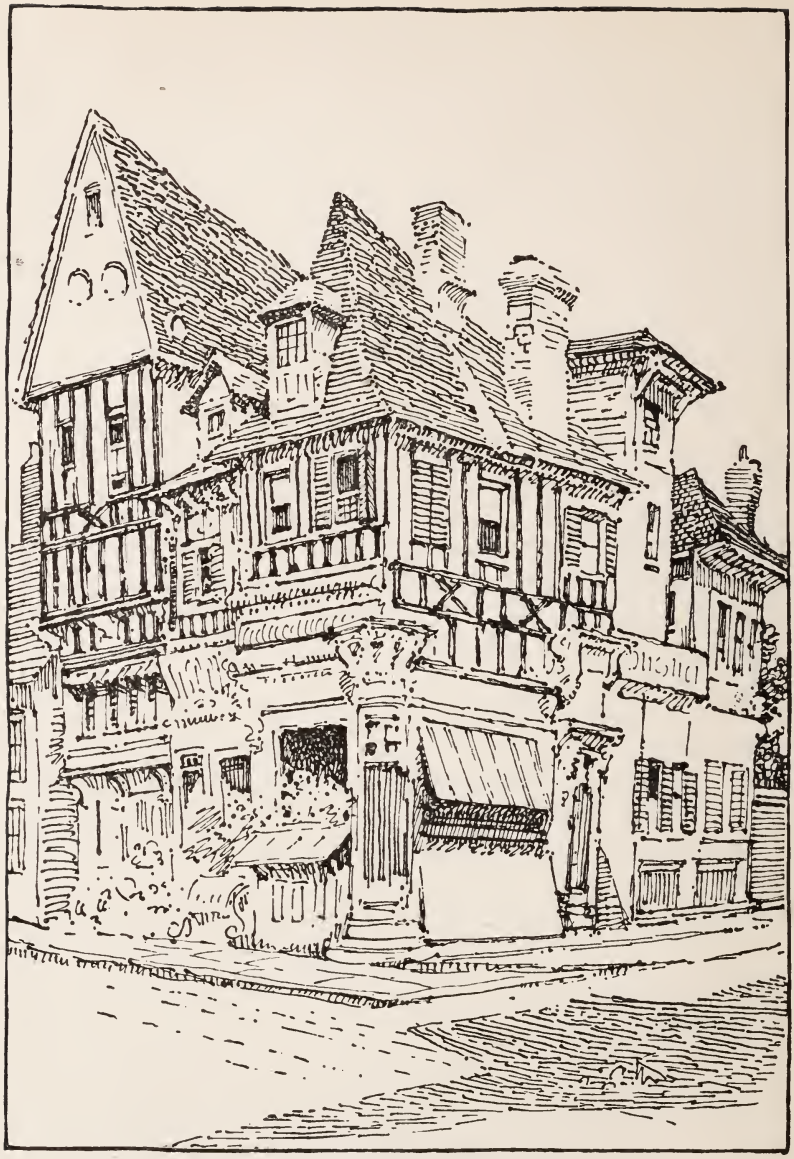
ing on a sketching tour it is advisable to " break in " a selection of nibs before starting.

Paper.—With regard to paper or board, the best surfaces for pen drawing will be found in Bristol board, in scraper board, or in Whatman hot-pressed paper. Their nature and surface allow of very great freedom with the pen. These are somewhat expensive, however, and *for preliminary practice* in direct linework and pen control, good paper with a prepared surface can be procured in book form at a reasonable price.

There are limitations to the possibilities of paper which render it (in common with ordinary white cardboard and some so-called etching cards) unsuitable for more advanced work. First, paper is liable to become saturated and pulpy in places where thick lines are drawn close together ; while cross-hatching with even a medium strength of line will almost certainly result in the nib *picking up* some portion of the paper. Secondly, paper does not allow of lines being freely erased with a penknife or scraper.

Both Bristol board and scraper board obviate these disadvantages. The surface of each is such that it allows of great freedom and latitude even in cross-hatching with thick lines ; while lines may readily be removed with a penknife or scraper, and a fresh surface pressed hard for further pen work.

There is no generally recognized restriction with regard to the surface of the paper or board for use in pen drawing. Many workers prefer a surface with a slight " bite " to it. Each quality of surface lends itself to a particular treatment, and has a natural tendency to produce its own particular *quality* of pen line. The draughtsman is free to work on any quality surface he may prefer, even on a rough cartridge paper, or on a thin Indian paper, adapting the technique to



DRAWN ON WHITE BLOTTING PAPER.

the surface chosen, and taking advantage of its peculiar qualities in any legitimate manner.

Several kinds of surfaces were used for the original drawings in this book, including Bristol boards of different thicknesses and surfaces, scraper board, rough and " hot-pressed " cartridge paper; while the illustrations on pages 32 and 156 were drawn on sheets of ordinary white blotting paper.

Bristol board is made in several thicknesses; but although it is convenient to have a fairly stiff board when working in the open, the quality of the surface is of more importance than the thickness of the sheet. It may be obtained with a smooth glazed or clayed surface, or with a surface having a slight " bite " to it; and while the former may be considered as conducive to the *purest* form of pen drawing, the latter, by offering a slightly irregular resistance to the pen, produces a distinctive quality of line which has a charm of its own. The particular advantage which scraper board has even over Bristol board is that it allows of an extensive use of the scraping tool. There is, as it were, a deposit of chalk on the surface of the board. In removing a pen line, a thin layer of this chalk is removed also, and the new surface is as white and as firm as the original surface. This scraping may be done with considerable latitude before the fabric of the board is broken into.

Useful sketch books in many shapes and sizes may be procured at any good art dealers. Those containing Whatman's Drawing Paper are especially good. The surface known as " hot-pressed " is the best for pen-and-ink work if a surface with a " bite " to it is desired.

If the student wishes to experiment, or to go further into the matter of suitable papers and boards, he should consult any good firm of art dealers or paper manufacturers. He will find a good selection of papers and boards of all thicknesses,

and with a great range in the nature of the surfaces. The advanced student should study the question of "drawing surfaces," so that he may find the characteristic surface which best suits his style of technique, and also that he may choose the surface best suited to the nature of the particular subject of the drawing in hand.

Good effects may be obtained by a combination of pen and ink and chalk on a tinted paper or board, using either a white chalk to emphasize the higher tones, or coloured chalks to suggest the colours. The tint of the paper should not be so deep as to destroy the value of the linework, neither should the colouring be more than suggestive, otherwise the sketch becomes too far removed from the legitimate scope of pen and ink. Such a combination proves a good medium for rapid sketching, and for making notes of interesting pieces of scenery, either in landscape or architecture; while this combination lends itself admirably to studies in figure drawing.

Pencil.—The pencil used for the preliminary sketch had better be a hard one—say, an HH, or not softer than an HB. But although the pencil should be hard, it should be used very gently. A good point to the lead which does not readily rub down is essential, and as there is never any necessity to "shade" with the pencil on the preliminary sketch, a hard lead is preferable in every way to a soft one.

Rubber.—The rubber (if, indeed, the draughtsman needs to use it) should be the best procurable, quite pliant, and of the very best quality. A hard or inferior rubber will appreciably damage or bruise the surface of any board or paper. When used over a finished pen drawing it will undoubtedly tend to damage the pen line as well, especially if the pencil work is hard, and needs more than a gentle pressure of the rubber to remove it.

In using the rubber over pen work, several gentle strokes, allowing the rubber to pass lightly over the drawing, are better than a few hard strokes with the rubber held rigidly. The pen work should be touched as little as possible. The rubber should be frequently cleaned on a separate piece of paper, especially after it has been drawn *along* the pen lines. There is a danger of an inferior or hard rubber breaking the edges or ends of these lines, or tearing up the fabric of the paper, and producing what the engraver terms a " rotten " line. Ink lines should not be touched with the rubber until they have dried completely into the fabric of the board. Very thick lines should not be touched for some hours.

Penknife or Scraper.—A useful scraping tool for removing pen lines may be made from a surgeon's scalpel; or the draughtsman may procure one of the kind used by architects' or engineers' draughtsmen. The point of the scalpel may be filed away, and both edges sharpened.

The old-fashioned scalpel has a convenient ebony handle, which allows of a free use of either the flat or the point of the blade. The point may be used for cutting into Bristol board, or the flat edge for scraping away the surface of the scraper board or Whatman hot-pressed.

The rounded end of the ebony handle serves excellently for pressing and hardening the surface of the board in preparing it for further linework after it has been disturbed by scraping.

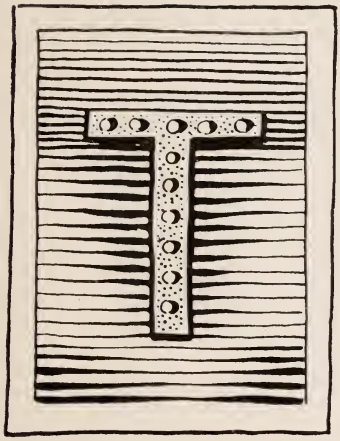
The combination of this tool and Bristol or scraper board admits of clean slices of board being cut away where linework or whites are required in places already covered by solid black. By thus cutting into the board, the effect of white lines crossing black lines or crossing solid blacks may readily be produced. If this effect were desired on a sketch drawn on thin paper we should have to resort to the use of body colour

white paint, but in Bristol or scraper board we may cut away or scrape away the surface completely.

Whatever tool is used should be kept very sharp, otherwise the surface of the board may be bruised instead of being cut away cleanly.

CHAPTER III.

PEN CONTROL.



TWO POSITIONS OF THE HAND.—There are two distinct positions or actions of the hand used in pen drawing. The first is with the weight of the hand resting on the little finger, and with the little finger stationary on the paper. In this position the length of the stroke is limited by the thumb's action—the hand retaining practically a similar position as when writing. The hand may be moved or turned bodily between the strokes, so that other than the ordinary directions of lines used in writing are possible and available. There is not a great range of direction, or especially of length of line, with the little finger thus resting on the page; but the position admits of a great range of strength, and it is essential where delicate lines or extreme accuracy of drawing are required in small detail.

The second position is when the little finger is allowed to move freely either along the surface of the paper or held above it; the thumb being on the top side of the pen rather than underneath it. In this case the action comes from the

FIG. 1.

FIG. 2.

FIG. 3.

wrist, or even from the forearm. As facility in drawing increases, this second position and action of the hand will be freely used, even for short strokes which at first may seem more suited to the fixed position of the hand. It allows of a freer use of the pen, of a greater range of *direction* of line, and greater scope in *length of line.* It is altogether more suited, and even conducive, to rapid work, especially in work drawn on a large scale. When the drawing is large, and the style of work free and open, this position, allowing as it does of a free use of the whole arm, is essential.

The preliminary exercises are designed for the first position of the hand; but when the lines are drawn from left to right, or in an upward direction, they may be considerably increased in length at all strengths, moving the whole of the hand either along the surface of the paper or suspended above it.

Strength of Lines.—Whatever the position of the hand, the nib must be drawn along in the direction and at the angle at which it opens freely, without biting into the paper in any way.

To test whether the nib is being used correctly or incorrectly in direct linework, the exercises should be performed without using ink. The nib will open out, and should do so without either of the points "biting" into or scratching the surface of the paper. Always, in direct linework, adjust the angle and direction of the *handle* of the pen; by thus adjusting the handle we shall better allow the nib to open freely and with equal pressure on both "points." The second position or action of the hand described above makes it possible to do this with greater facility and with longer strokes.

If, owing to the stiffness or to the lack of freedom in bending the joint of the thumb, any difficulty is experienced in drawing the lines at the length given, shorter lengths may be practised in the first instance.

Simple though these lines appear to be, they form the very bedrock of pen drawing. They are used in sketches ranging from the very simplest up to those of the greatest degree of intricacy. We have seen exquisite sketches drawn almost in their entirety in simple straight lines; sketches in which the most beautiful effects obtainable in pen and ink

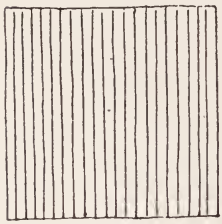


FIG. 4.

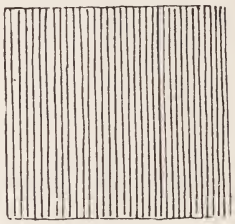


FIG. 5.

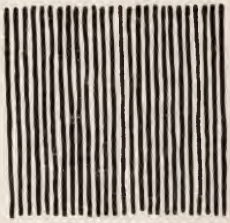


FIG. 6.

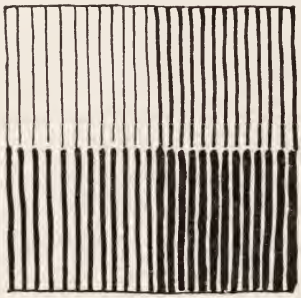


FIG. 7.

FIG. 8.

have been produced by the delicate use and contrast of simple lines—lines so simple, indeed, that they could not be said to possess any distinctive individual quality or virtue other than their beautiful simplicity. The degrees and quality of tone which may result from their proper manipulation and contrast are so great and exquisite that the young draughtsman should feel inspired to persevere in this simple linework until he can

produce, and more especially reproduce, any line or combination of lines at will and with facility.

Of vastly greater importance than the mere ability to draw such simple lines is the ability to reproduce them in series. Before we come to the end of this little book we shall require, not five or six different strengths of line, but more probably five or six hundred.

In an intricate sketch the variation in strength is very subtle, and, to the uninitiated, often imperceptible. Moreover, as we proceed we shall find that lines of precisely similar strengths may yet be made to vary in many respects in quality, according principally as to whether they are drawn slowly or rapidly, but according also as to whether they are drawn on a rough or a smooth surface.

It is on account of the far-reaching importance of cultivating the power to *reproduce* similar lines to those already drawn that we have given the exercises in squares. The earnest student will not be satisfied merely with covering a number of spaces with lines at random ; but he will set himself the more difficult task of reproducing a series of precisely similar spaces so covered, working at several different strengths of line.

This power of reproducing any desired strength of line will be exercised later in relation to the " tonal " effect of the sketch, where subtle gradations of strength are introduced in all kinds of unexpected places. There is yet another task which the student should set himself in connection with this simple linework, and it concerns *accuracy of drawing;* and in order to develop this as soon as possible, the simple lines should be drawn with regard to direction. To cultivate this, first place two dots on the paper, and then, with due regard to a preconceived strength of line, connect these two dots by one straight, free stroke of the pen (Fig. 9). Let these

lines be of varying lengths and strengths, and let them be drawn in every conceivable direction. Carry the hand bodily over the page until the most convenient position of the whole hand is found, then draw an imaginary line in space several times from point to point before putting pen to paper; finally, draw the line without the slightest hesitation. Such practice will prove of the utmost value later on in advanced drawing, when we wish to combine extreme accuracy of drawing with a delicate manipulation of tone quality and tone value.

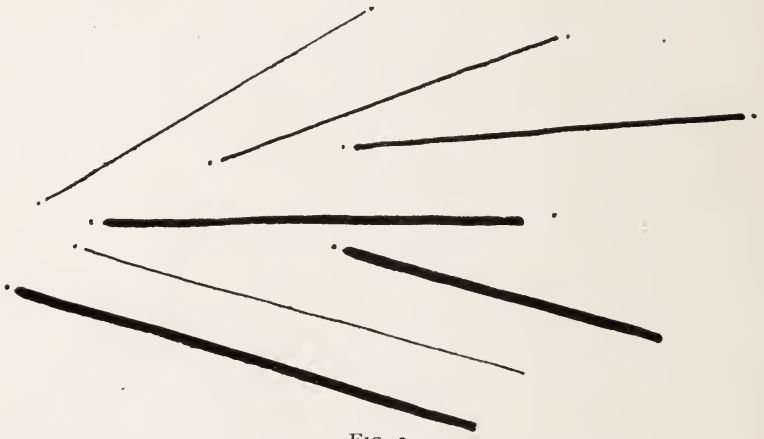


FIG. 9.

The Preliminary Pencil Drawing.—Before proceeding with the pen, the model should be drawn carefully in pencil. Let this drawing be correct, both as regards perspective and accuracy of detail, so that there may be no hesitation in drawing with the pen or any doubt as to the direction of the line.

Even at this early stage the quality of the pencil work must receive careful attention. The line should be quite delicate, and easily and completely removable with a gentle,

dusting stroke of the rubber. On no account must the pencil be allowed to dig into, or to form a hollow in, the surface of the paper or board.

If the pencil drawing needs correcting or cleaning up before the pen work is begun, a delicate use of the rubber is to be preferred; any hard or vigorous usage will damage the surface of the paper, and the subsequent pen line will suffer.

The "Tone" of Linework.—In shading by linework with the pen we aim at a definite and even *tone* for each surface, and not merely at mechanical accuracy of line.

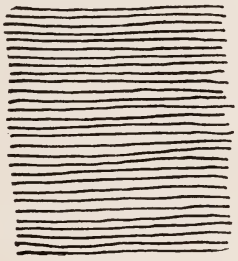


FIG. 10.

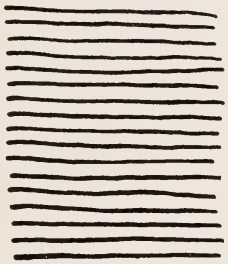


FIG. 11.

It is necessary to understand precisely what is meant by *tone* in pen-and-ink drawing, for although the term has the same significance in pen and ink as in brushwork, the technical means of producing tones by linework are quite distinct from those used in brushwork. The paper represents a *white* tone. A space covered completely with ink would represent a *black* tone. Intermediate tones and gradations of tones are produced by the combined effect of a number of lines and a number of intervening white spaces on a given area. Strictly speaking, each line is a black tone, and each intervening space a white tone; but when a surface is covered with black lines with white spaces between, the black lines and

the white paper blend, in effect, into a *tone* for the surface covered.

The tone of a surface will depend upon the thickness of the lines and their distances from each other.

Given that the lines covering a certain space are equal in strength and equidistant, the *tone* of that space will depend upon what *percentage* of it is white and what percentage is

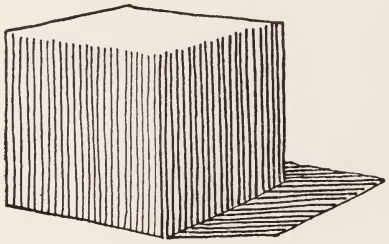


FIG. 12.

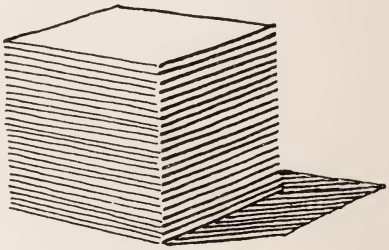


FIG. 13.

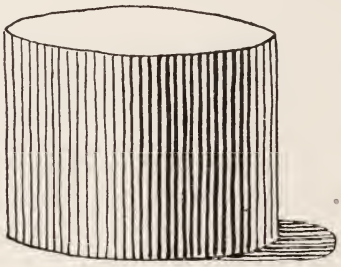


FIG. 14.

black. Neither the number of the lines nor the thickness of the lines will *alone* determine the tone ; either of these factors may determine the quality of tone, but they need to be combined in order to determine the *depth* of tone.

Thus thin lines placed close together may be made to produce a deeper tone than thicker lines placed farther apart.

Figs. 10 and 11 show an example of this. In Fig. 10 thin

lines are placed close together, while in Fig. 11 thicker lines are placed farther apart. On holding these two diagrams at such a distance that the individual line is lost, it will be seen that Fig. 10 is of a deeper tone than Fig. 11. That is to say, thin lines placed close together have produced a deeper tone than thick lines drawn farther apart.

The student will see from this that *the tone of a surface* is distinct from *the strength of a line.*

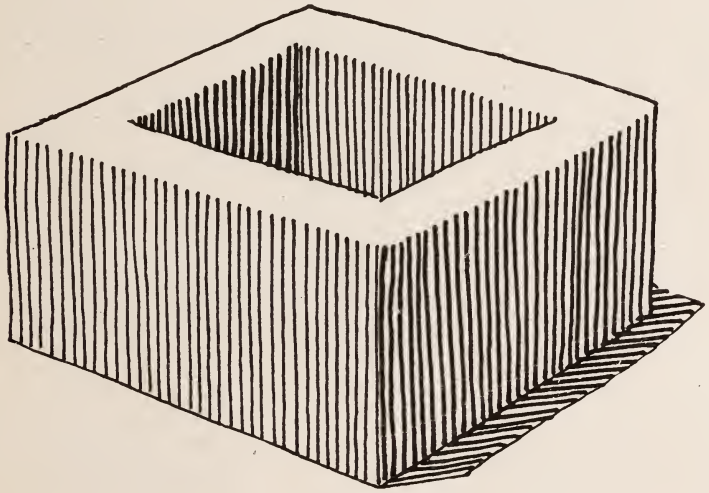


Fig. 15.

Fig. 16 (eighteen tones) represents a few tones which may be produced by simple straight lines. The student should view this figure from a distance, and endeavour to number the tones in order as they range from the lightest to the darkest.

The production of *tonal values* runs through the whole gamut of pen drawing ; it might almost be said to be our principal aim. There is only one thing which is of higher considera-

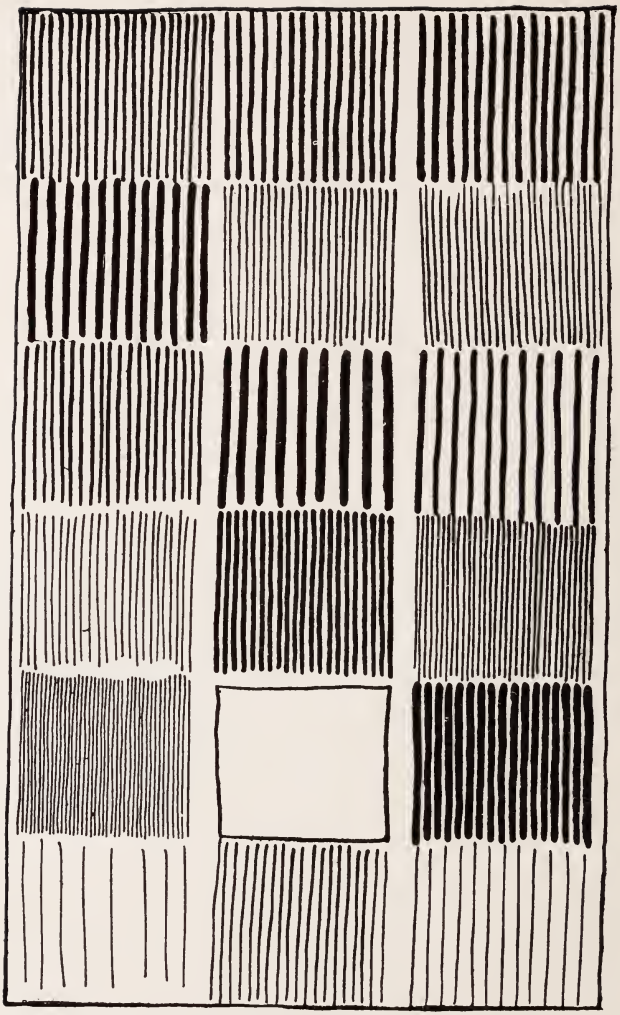


FIG. 16.—Illustrating the distinction between "Strength of Line" and "Depth of Tone."

tion than that of tonal values, and that is ambience—a subject with which we subsequently deal, and with which we conclude our treatment of pen-and-ink technique. It is the beauty of the tonal values which may be produced by our frequently despised medium that raises pen and ink up to the level of an art medium. Pen and ink is described as "linework," and straightway condemned as such because (we are told) Nature does not unfold herself in lines but in tones and colours. But pen and ink in its highest aspect is *not* linework. It is as much a "tonal" medium as any other art medium. This is the true pen-and-ink draughtsman's point of view. Outlining is only one—and possibly the lowest—aspect of pen

Fig. 17.

drawing; the true aspect of pen drawing is that of a *tonal* medium. We must think in tones and work in tones, always making "linework" subservient to "tonal values." Cultivating this attitude of mind, the student will find his linework gaining in fluency and freedom. Preconceiving and mentally visualizing his final tonal effect, his hand will work with an unconscious spontaneity without which he will never rise above the level of a niggling technician. The problem of means to an end will often solve itself when the final tonal effect is preconceived, and a bee line made for its attainment. For, provided that the tonal effect is good, we have to allow, in advanced drawing, considerable latitude as to the means

employed in producing pleasing tonal effects; for it frequently is the case that there are no prescribed methods as to the technical means by which the required tone is to be produced.

Variation of Strength during a Single Straight Stroke.—When a variation of strength is required during a single stroke it is most essential that the nib should open and close equally on each side of the slit as the line increases or decreases in

FIG. 18.

FIG. 19.

FIG. 20.

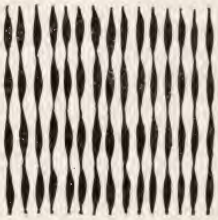


FIG. 21.

FIG. 22.

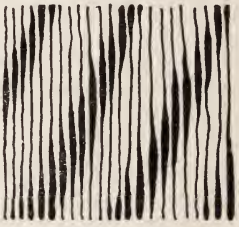


FIG. 23.

strength. It will probably be found easier to increase the pressure in changing from thin to thick than to get a nice gradation in reducing from thick to thin. In the latter case the gradation is more difficult to obtain when the lines are drawn slowly than when they are drawn rapidly.

Figs. 18 to 23 show a series of exercises for controlling variation in strength. They will be more difficult to execute on a rough surfaced paper or board than on a glazed or clayed

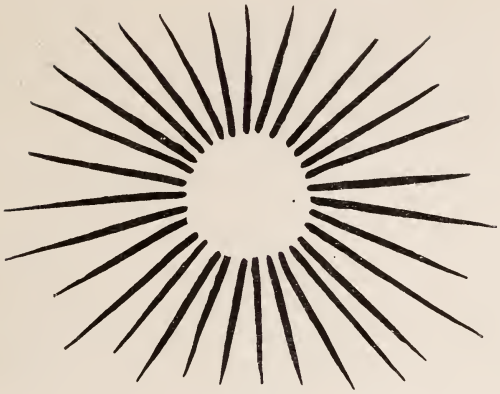


FIG. 24.

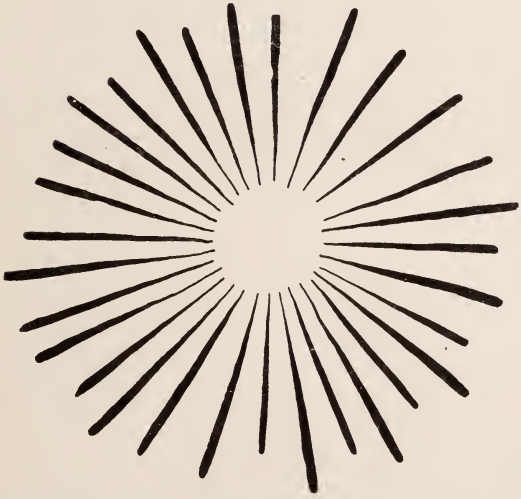


FIG. 25.—To be copied by moving the hand but not the paper.

surface; while to attempt them on a soft or pulpy surface will at once show the disadvantage of such a surface for pen-and-ink work. They should be practised in various directions

other than vertical and horizontal. They should also be practised with increasing rapidity when once the nib can be controlled during a slow stroke, using both positions of the hand mentioned earlier in this chapter. Figs. 24 and 25 are exercises which are to be drawn by moving the hand bodily into the necessary position, but without turning the paper.

FIG. 26.

FIG. 27.

FIG. 28.

Such practice will develop control of the pen nib when drawing in any direction.

Lines varying in Thickness and Direction.—Rounded, curved, or undulating surfaces show gradations of tone which are due to lighting. This light and shade may be indicated in several ways in pen and ink—by straight lines of different

FIG. 29.

FIG. 30.

thicknesses, by cross-hatching in various strengths and directions, or by simple lines, each separate line varying in strength and direction.

Figs. 26, 27, and 28 show three shaded circles, and with the lines drawn in such a way that no modelling is suggested. Fig. 29 shows a sphere, the shape of which is indicated by

straight lines; but the lines are so graded in thickness that they suggest roundness, the thickest parts showing the greatest depths of shadow, the thinner parts showing both the gradation of tone in the shading and the reflected light underneath. Fig. 30 is a sphere shaded with curved lines which answer the same purposes. Figs. 31, 32, and 33 are exercises in lines varying in thickness and in direction. Fig. 31 shows an

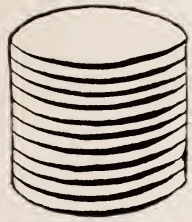


FIG. 31.

FIG. 32.

FIG. 33.

elementary application of line varying in strength, and also strength and direction combined.

In such plain, rounded surfaces as those shown in Figs. 29 and 30 there is to the eye no suggestion of any system of linework at all. The direction of the lines which are to give the tone values would seem to be quite undetermined for us. There is, however, an underlying principle which governs the direction of line in many cases, based on the perspective and drawing of the object.

It is best seen in the drawing and shading in linework of a cylinder and a cube.

Fig. 34 shows this principle, a principle which is generally applied throughout the whole system of shading cylindrical figures in linework.

Examples of the application of this principle may be seen in perfection in drawings by the great pen-and-ink draughtsmen. The modelling of faces, hands, drapery, trees, details of architecture and other rounded surfaces is frequently indicated by the subtle use of lines drawn with exquisite and minute accuracy on the principle shown below in the drawing of the simple cylinder and cube.

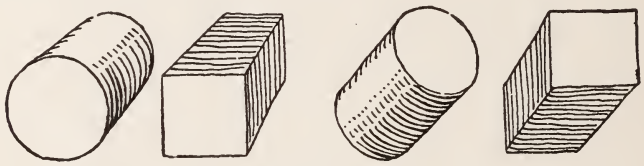


FIG. 34.

Other examples of it may be found in a more prosaic way applied in printed, engraved catalogues of almost every description. In studying examples of the direction of line used in rounded surfaces these illustrated catalogues will show how expert engravers have tackled and solved the problems of modelling and shading in linework. The student will readily come to distinguish between the work of a good and an indifferent engraver. He should not despise the task of examining the principle as applied to, say, a cutlery or jewellery catalogue. It will be found instructive to study the direction and strength of line used.

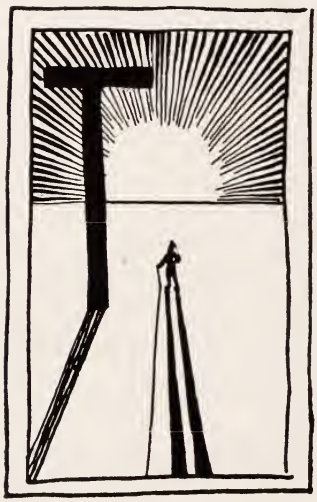
But although the direction of line both in engraving and in pen-and-ink drawing is frequently governed by the same underlying principles, the student should not come too forcibly

under the influence of the engraver. The engraver's " comb " with its equidistant teeth, and the extreme accuracy of parallel lines which they produce, should never be the model of the free-hand pen draughtsman. While similar underlying principles govern the direction of line in both cases, the two arts part company in their very fundamental aims. The student should study the principles governing the engraver's comb, but he should not compete with its beautiful symmetrical accuracy of workmanship except on those very rare occasions where the beauty and delicacy of the subject demand it. There *are* such times, and in the work of the greatest pen-and-ink draughtsmen very beautiful examples of it may be seen by those who diligently seek for them ; but as a general practice pen-and-ink drawing demands a free treatment as opposed to mere mechanical or mathematical accuracy.

From the outset the student will naturally wish to examine critically all pen-and-ink work which comes under his notice. Even in the light of this chapter he may do so with great benefit. His scrutiny or criticism should be both from an analytical and from an artistic point of view. He should view the sketch first as pure linework ; secondly, as a piece of tonal work ; or, better still, the order should be inverted, and *after* viewing the drawing as a work of art, or as a tonal study, he should then bring the searching eye of the technician to bear upon it, and examine, even with the aid of a magnifying glass, the technical means employed—the strength of line, the direction of line, their distance apart, and the effect of modelling and tonal values which the use or application of these devices brings about.

CHAPTER IV.

LINEWORK IN CAST SHADOWS.



THERE are several factors which influence the direction of linework used for cast shadows.

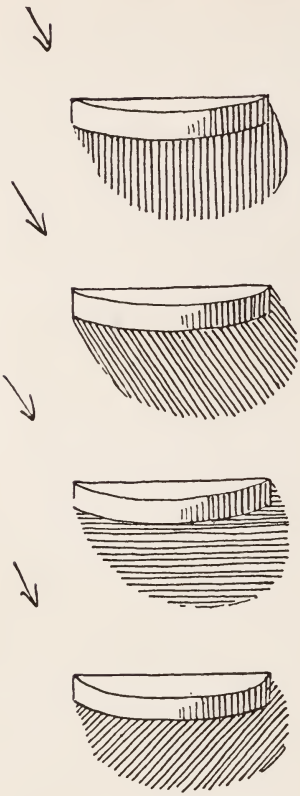
The three principal factors are: (1) The direction of light; (2) the shape of the object and the texture of the material on which the shadow falls; (3) the general "swing" or composition of the sketch.

In addition to the question of direction of line, we have still further to consider the strength, kind, or quality of line as influenced by the depth or gradations of tone of the shadow, the texture of the material, and the style of pen work of the sketch.

In any but the very simplest drawing of cast shadows, each of these factors may be exerting its influence on the linework in a greater or lesser degree. Very frequently the

direction of light is the predominant factor as governing the direction of line; but almost of equal importance—sometimes, indeed, of greater importance—is the shape and contour of the object on which the shadow falls. It is impossible to formulate any hard-and-fast rules as to either the scheme of direction or the strength and quality of line; the circumstances are too varied, and the manner of treatment too free to admit of the enforcement of any prescribed application of linework. For not only may the claims of each factor in turn be the more urgent, but it not infrequently happens that the artist seemingly ignores all claims, however strong or logical, and aims merely for the best or most fitting *tonal value* of the shadow. Nevertheless there is a logical aspect of cast-shadow drawing with which the student should be well acquainted. Realizing this logical aspect, he will then be free either to adopt it in practice or to depart from it from some ulterior motive, or to make the best choice between alternatives of equal or relative merit. An intelligent grasp of the matter and clear reasoning will, moreover, save the beginner from much aimless or experimental scribbling in shadow work, for he will often find some factor determining the direction of line for cast shadows which seemingly, at first sight, offer no obvious clue as to the direction which may reasonably be used in their treatment.

The accompanying diagrams will suffice to draw attention to this point, and we have chosen the shadow of a simple bracket upon a plain wall so that the question of direction of line may be raised apart from other important considerations, such as those of the shape and texture of the material on which the shadow falls, or the quality of line used in depicting the shadow—considerations which are dealt with later. In the diagrams the arrows indicate the direction from which the light is coming.



1. Lines drawn in the direction of the perpendicular plane of the wall.

2. Lines following the direction of the rays of light.

3. Lines drawn in the direction of the horizontal plane of the wall.

4. Lines drawn at right angles to the rays of light.

FIG. 1.

The kind of line or the style of linework should be in keeping with the nature of the pen work of the drawing as a whole, but in the student's earlier efforts at drawing cast shadows the direction of line should be governed by some definite factor.

Another important consideration as affecting the direction of line is the shape of that part of the subject on which the shadow falls.

A casual glance at the eight examples in Fig. 2, especially if they are viewed from a distance at which the individual line is lost, or with the eyes half-closed, may not disclose the difference between the technical means employed in their treatment; but the principles involved in the varying methods adopted are of far-reaching importance, and their influence is extended even to the most complex drawing, where they may be applied either on broad lines or in minute detail.

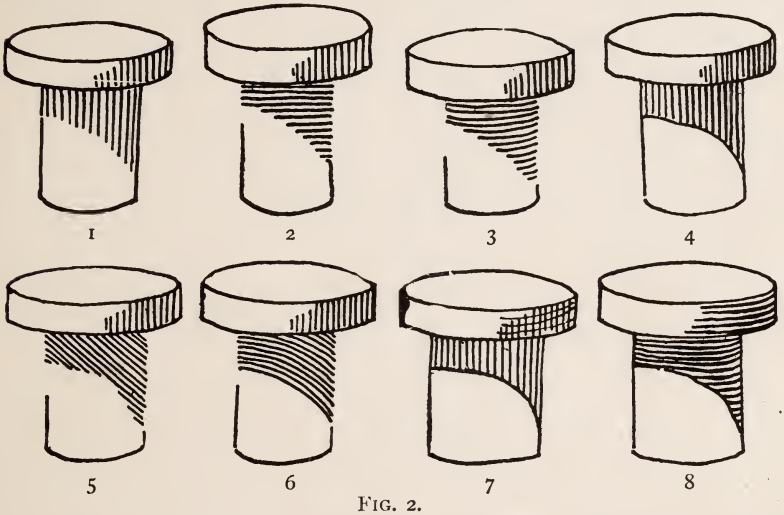


FIG. 2.

The direction of line in shadows is a matter which frequently puzzles the young draughtsman in original work. The difficulty often arises from a lack of knowledge of drawing pure and simple and skill in perspective. If, however, we have learnt the lesson of direction of line in indicating the contour of cylindrical figures which the cylinder and cube teach us, we should have no difficulty in understanding the logic of direction of line in shadows cast on to cylindrical figures.

In these diagrams there are two factors which influence

the direction of line: (1) The direction of light; (2) the shape of the object. The strength of line is influenced by the shading of the model and the depth of tone of the cast shadow.

In No. 1 an even tone for the shadows is obtained by vertical lines of an even strength following the perpendicular planes of the model. This treatment is perfectly safe in its general application, and the shape of the shadow is sufficient to indicate the direction of light. It does not attempt to suggest all of the modelling of the object, but the eye will instinctively read into it certain qualities which are absent in the actual drawing.

No. 2 shows the use of horizontal straight lines, and one feels that there is nothing to justify this particular treatment. In fact, it may be said to be obviously wrong. Moreover, the vertical and horizontal lines conflict with each other in their effect upon the eye; but the principal fault in this example lies in the fact that the straightness of the horizontal lines actually destroys the effect of roundness and contour, and gives the false impression of a flat surface.

No. 3 uses vertical and horizontal lines. Here the latter are curved to follow the curvature or shape of the object. It is more satisfactory than the second example; but although the contour is suggested, there are no gradations of tone in the shadow, and there is still an uncomfortable conflict of effect between the two directions of line.

No. 4, again, uses vertical lines exclusively. Variation in thickness of line suggests both the roundness of the object and the gradations of tone in the shadow. In these respects the treatment may be considered as fuller than the treatment in Example 1. But although it is fuller, it is not necessarily superior. In fact, if the simpler treatment as shown in the first example is sufficient to suggest to the eye, or to allow the eye to read into it the additional qualities, the first ex-

ample should be considered superior as suggesting more while actually depicting less.

No. 5 shows vertical and oblique strokes. The oblique strokes attempt to show direction of light ; but, being straight, they destroy the effect of contour, and being of an even strength they fail to suggest the modelling.

No. 6 shows an attempt to overcome this last failing by curving the oblique strokes ; but such curved strokes are so intimately associated in their application, and so habitually restricted in their use to indicating the modelling or following the contour of the models drawn in this way, that they actually appear here as false modelling ; it is as though the cylinder were twisted out of shape. Neither can it be claimed that the attempt to indicate the direction of light has succeeded. It is an elaborate treatment which may be said to have failed in every respect.

No. 7 is a variation of No. 1 ; but the conflicting effect of the two directions of line makes it less satisfactory.

In No. 8 only horizontal lines are used ; these are curved to follow the contour, and varied in strength to show gradation of tone in the shadow, and reflected light on the right hand side. The conflict of direction noticed in No. 3 is obviated. This is possibly the fullest and most logical treatment to be found in the eight examples. As here represented it is elaborate in its methods, and makes great demands on the accuracy of both the direction and the strength of line ; but it would be possible—and generally advisable—while retaining the same scheme of linework to draw the lines rapidly and freely, and the result should be both logically justified in its methods and successful as suggesting the character of the model

* * * * * * *

There is no need further to multiply ways in which this

shadow may be shown. It must suffice to call attention to the principle involved. The circumstances of its application are so varied that no hard-and-fast rule could possibly be formulated. The worker should examine all good examples of pen-and-ink drawing, and endeavour to ascertain what factor the artist has chosen to determine his direction of line. It will frequently be quite obvious; but the student must not be surprised to find many examples in which the direction not only does not explain itself, but in which the lines seem to run in a contrary direction to what might have been legitimately utilized or reasonably expected. Sometimes the direction is merely the convenience of the pen—the draughtsman not attempting to make his lines coincide in direction with that suggested by the model.

In examining good work the subject must not be dismissed lightly, as there are always other factors than the mere direction of line to be considered, the importance of which the student will grasp only after much careful study of pen-and-ink drawings and considerable practice in original work.

It is very frequently the case that while there may have been a choice of several directions which might legitimately have been utilized, the artist has rejected each of them and chosen some other direction.

It is at this point where individuality of style asserts itself—some draughtsmen showing originality of perception and expression with possibly a complete disregard for any logical reasoning; others working to a circumscribed formula or mannerism.

Exhaustive research will enable the student to see when and why a logical direction has been used, and also when (though, perhaps, not always for what reason) other directions have been adopted.

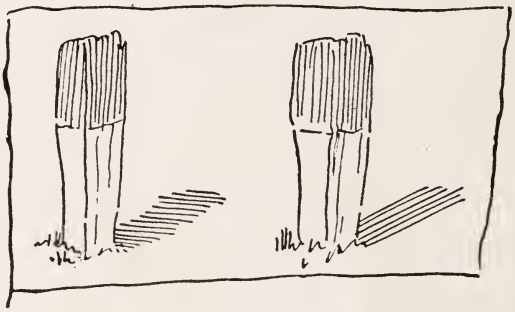
The lines may sometimes be drawn in a given direction

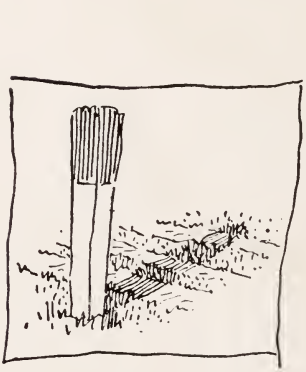
to aid the composition or *swing* of a sketch—to attract the eye, as it were, to the central point of the composition. Many draughtsmen work with the definite object of limiting the number of different directions used, and it is undoubtedly advisable not to multiply the directions unnecessarily, especially in the shadows and in unimportant details of a sketch. The mere multiplicity of directions has a peculiar effect of its own, which should be produced only when it is purposely intended. The drawings of Phil May afford some excellent examples of the direction of line in cast shadows, giving a feeling of composition to a sketch which otherwise would have been simply the drawings of separate figures.

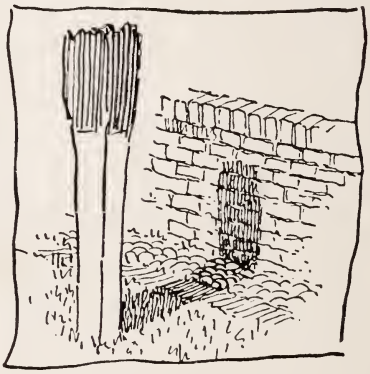
It will be found peculiarly instructive to study the question of direction of line in comparing the work of left- and right-handed draughtsmen, both as regards modelling and in cast shadows. Close scrutiny will reveal similar methods of workmanship in modelling by direction of line in cast shadows, and in places where direction of line is an important factor; but where no particular direction of line is deemed to be of importance the mere convenience of the left or right hand often results in a marked contrast of treatment in the work of left- and right-handed draughtsmen. It may interest the student to find examples of this in *Punch* and elsewhere. It will be noticed that the work of a right-handed draughtsman shows a preponderance of lines slanting upwards from left to right, while the opposite is the case in work by left-handed draughtsmen. There is, in addition to this tendency, frequently a suspicion of a curvature in vertical lines; each line showing a slight bow outwards away from the hand, being, as it were, an arc of a circle having some part of the hand—either the right or the left as the case may be—as the centre.

* * * * * * *

Supposing the cast shadow to fall on a number of different objects, or on parts of the sketch representing objects of different shades and textures, we have a choice between two distinct manners of treating the linework in the shadow. We may either slavishly follow in linework the modelling of each



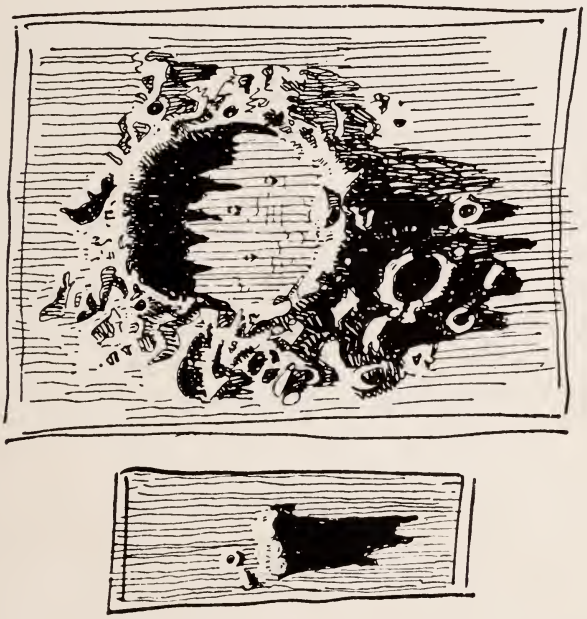




separate object contained in the shadow, indicating both the gradations of tone and the peculiar qualities; or we may treat the shadow as being itself of a definite shape in its entirety, and, regardless of the detail contained in the shadow, represent the shadow as of an even tone. Here again the style of the drawing will determine which method to adopt; but the

growing tendency of modern pen-and-ink drawing is towards the latter treatment, and it is very much to be preferred.

Adopting the first method of treating objects in shadow in minute detail, we soon find ourselves involved in intricate problems of direction and strength of line, and when we have achieved our object we find that the intricacy of linework

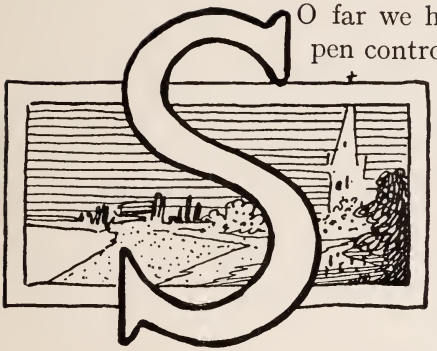


often has a distracting effect upon the eye. But between the two extremes of faithfully representing the details and modelling of every object in the shadow, and merely representing the shadow by a fairly even tone regardless of the detail contained in it, there are many degrees or manners of treatment. In practice the earnest student will follow both methods ; but we would strongly recommend that the tendency should be

towards reducing detail in cast shadows to a minimum. Our policy should be to leave as much as possible to the eye, for there is the greater subtlety in draughtsmanship in suggesting to the eye things not actually portrayed in the sketch. This subtlety is most pronounced and frequently exemplified in the treatment of detail in cast shadows. Moreover, we shall find that an over-elaboration of detail in shadow distracts the eye to such an extent that other parts of the sketch lose in quality of tone. We would advise, therefore, that the student should not peer into shadows with the object of seeing as much detail as possible, but that he should rather half-close his eyes and see as little as possible. An excellent practice which will help us as to the amount of detail which should be shown in a shadow is to focus the eye on some *other* part of the subject, and, while doing so, mentally to visualize with the mind's eye what can be observed in the shadow. It will be found that much less can be seen than when peering directly into the shadow, and this will possibly represent the right amount of detail to introduce into the sketch.

CHAPTER V.

PEN DRAWING.



O far we have dealt principally with pen control—the elementary application of direction and strength of line, and tone values. We now arrive at a more interesting aspect of pen work—namely, pen drawing, or interpreting objects in the pen-and-ink medium. At this stage of our work we shall confine ourselves to drawing from separate models, and apply in combination the simple linework of the preceding chapters. In drawing from separate models a considerable amount of outlining is unavoidable ; we shall, as we proceed, aim at reducing outlining to a minimum, and as the subjects become more involved, the need of outlining will gradually disappear—different objects or parts of the sketch will form a natural background to other objects, so that the form, shape, or tone colour will be adequately represented without outline.

Before the student arrives at the stage in which he can sketch—that is, freely suggest—his subject with the pen, it

is necessary that he should understand more of the principles which govern direction and strength of line; and although our ultimate object will be to use the fewest number of lines which will adequately suffice to achieve the desired effect, the beginner will best attain that end by passing through a stage in which he pays minute attention to strength and direction of line, and, if anything, over-elaborates rather than seeks to minimize the drawing of detail. By such a practice he will learn to cover his space—a process which is more difficult to achieve in pen and ink than in brushwork. But as we make the transition from pen drawing to sketching we shall find two processes at work, and the student will develop his powers in two opposite directions: he will learn, first, *to simplify;* secondly, *to elaborate.* Opinion is divided as to which is the more important of the two. One school will aim directly at extreme simplicity and sketchiness, while another may aim at minute elaboration of detail. We disclaim any wish to lead the student into any one particular style of treatment, and the probability is that at whichever end he starts he will (if he possesses any original powers of perception) arrive at the same mark in either case. For the moment we recommend close attention to detail, as we believe that all attempts to aim directly at the facility and economy of expression of the expert will hopelessly fail. But during any student's progress the two processes are certain to come into play, and we must treat our subject from both aspects, especially in view of the fact that similar objects may require

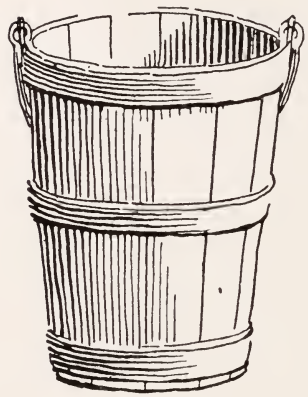


FIG. 1.

totally different treatments when introduced under varying aspects. The size of the drawing, the style of pen work, or the importance of the object as part of the sketch will directly influence the manner of its treatment. We shall, therefore, do well to equip ourselves with the power of both elaborating detail and suggesting the object in a few strokes.

Whichever process is at work, we are faced with the problem of *direction* and *strength* of line, and while each of these may be thought of separately, they will need to be mutually adjusted to interpret the detail and relative tones of the model.

As an example of the different ways in which a simple model may be drawn, we show several diagrams of a wooden bucket; and we recommend the student to carry out similar and original research with other models.

As a study of a bucket this sketch (Fig. 1) is satisfactory. But supposing that it were merely a detail in a fuller sketch, say of a farmyard, it is too elaborate—too fully stated, as it were. In sketching we must find simpler means of representing such an object, as the linework has to be economized.

Fig. 2 shows the object represented by its shadows, and without gradation of tone. Such a treatment might be suitable according to the size of the drawing and the style of the pen and ink of the sketch.

More often the object has to be expressed in terms of linework. We are then faced with the problem of direction, strength, and economy of line. Fig. 3 shows the shaded portion treated with oblique strokes, and while the eye still accepts this as a drawing of a bucket, there is no justification for an oblique stroke in the construction of the object itself.

The construction of the model suggests both horizontal and vertical lines. First, horizontal lines as suggested by the curvature of the bands and the contour (Fig. 4). Secondly,

FIG. 2.

FIG. 3.

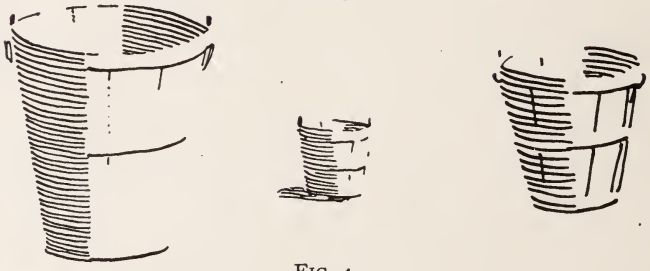


FIG. 4.

FIG. 5.

vertical lines as suggested by the construction of the boards (Fig. 5).

Comparing these results, we feel that Fig. 5 is the more suggestive of the original bucket. It is more economical in linework, and represents more faithfully the general *appearance* of the object.

Here we have a case in which there is a definite suggestion of direction of line in the model. Fig. 6 shows a collection of similarly shaped objects, in which the suggestion is less definite or seemingly absent. But the occasions are very rare indeed when at least one factor—such as texture, light, reflected light, fibre, grain, or some other characteristic—does not suggest some direction which has a preference over others. Sometimes we have several choices of direction, each of equal merit. In such cases some factor other than those of the requirements of the object itself may be our principal guide.

Supposing we have chosen a direction of line which gives the truest suggestion of the form of the object, we have then to manipulate the kind of line so that we may best suggest its tone, or its light and shade. Here we find the factor *strength* of line added to the factor direction of line.

As we have already seen, gradation of tone may be produced either by varying the thickness of the lines, by placing them closer or farther apart, or by a combination of both. No possible law could be laid down as to which device should be resorted to. But very many hours spent in seeking for examples in the work of the best pen-and-ink draughtsmen places us in a position to state that while the variation in strength of line is the principal factor in suggesting gradation of tone, the vast majority of cases shows the device used *in combination* with the drawing of the lines closer together.

A close scrutiny of Fig. 7 (work-basket) will disclose examples of the two devices used separately, and also in

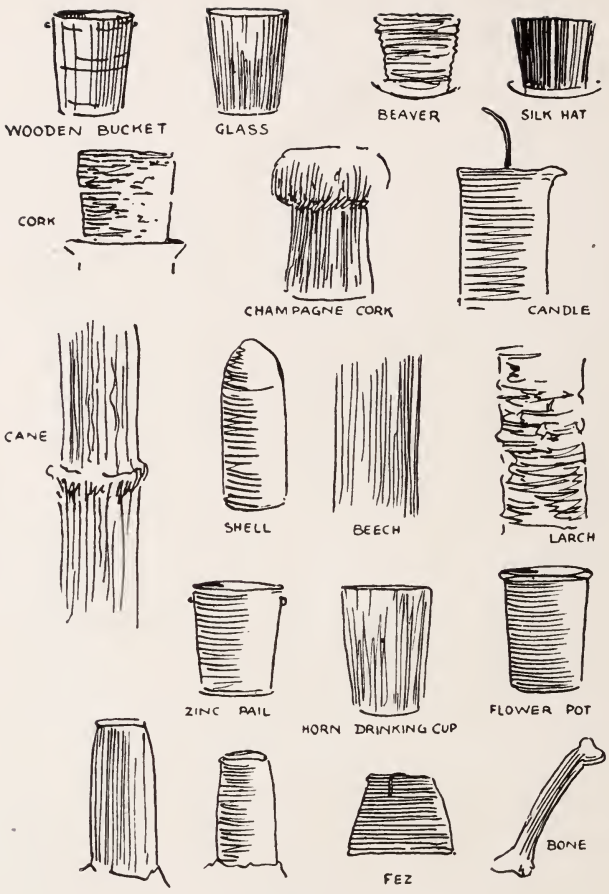

WOODEN BUCKET
GLASS
BEAVER
SILK HAT
CORK
CHAMPAGNE CORK
CANDLE
CANE
SHELL
BEECH
LARCH
ZINC PAIL
HORN DRINKING CUP
FLOWER POT
FEZ
BONE

FIG. 6.

combination, the latter being by far the more predominant usage.

With the question of texture we deal more fully in a sub-

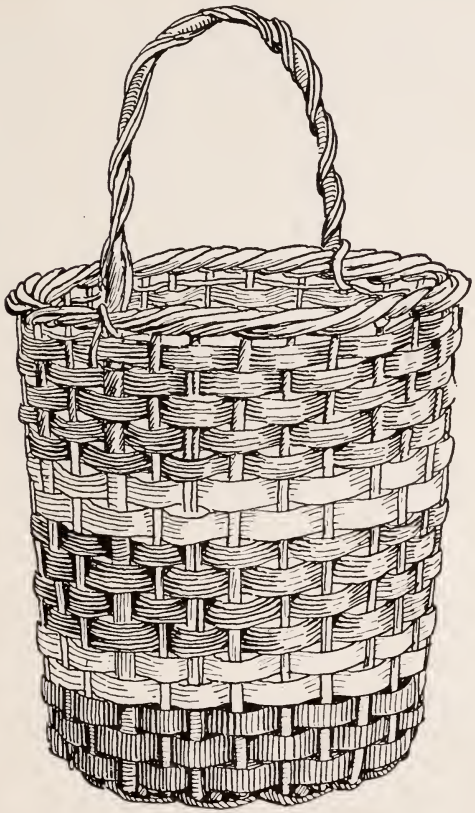


Fig. 7.

sequent chapter, but these simple examples suffice to call attention to two important points in sketching in pen and ink—namely, the direction and strength of line, points which

grow in importance and intricacy as the subjects become more ambitious.

* * * * * * *

The student is strongly advised to produce original work at

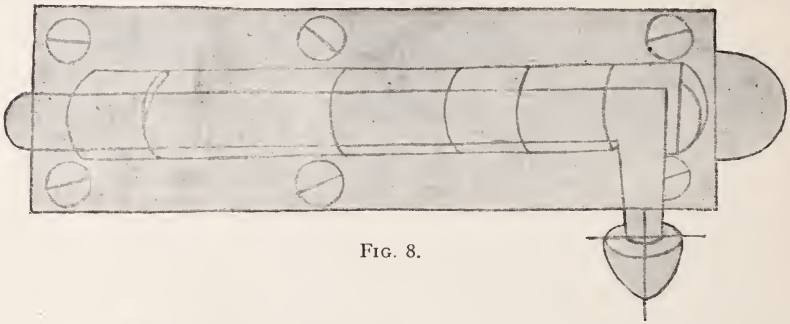


FIG. 8.

FIG. 9.

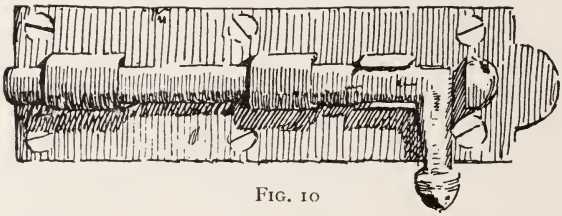


FIG. 10

this stage of his progress. He will learn more in a few honest attempts at original interpretation than in many hours spent in copying pen-and-ink drawings. The following illustrations of a door bolt indicate the lines which he may well adopt.

While this particular example shows a drawing from which a working model could be reconstructed, the method of procedure is based on principles similar to those generally adopted in the most complicated or advanced drawing.

In portraying the object as it appears, we have to decide first what are the essential details in selecting which for representation we shall best suggest its appearance ; and, secondly, what scheme of linework will result in the truest representation and the greatest economy of line.

Having examined closely, and decided what groupings of lines to use, we use our lines in their threefold capacity for expressing form, shadow, and texture.

In actual practice it is advisable to proceed on the following method :—

1. Seek to interpret the model by its shadows.

2. Continue by indicating or suggesting any details in its texture.

3. As a last resource, use pure outline.

The three drawings of the bolt illustrate the manner of procedure.

The first figure is the preliminary pencil sketch. In the second figure we show the shadows without the gradations of tone which are found in them. It will be noticed that we include in the shadows those cast by irregularities in the surface. In the third illustration we have added a few necessary outlines, a few final touches indicating the texture and smoothing off the hardness of the general tonal effect.

In all such studies it is better to prepare a careful pencil drawing before inking. It is even advisable to indicate in pencil what scheme of direction of linework is to be adopted with the pen. When the pencil drawing is complete, work in the following order with the pen. Draw in the shadows, carefully noting their *shape* and any *variation of tone.* Indi-

cate any surface markings or characteristic parts of the construction which can in any way be represented by means of shadow effects.

Before proceeding further with the pen, let the drawing dry, and rub out the pencil marks, leaving only such outline as is obviously indispensable.

It will often be found that at this point we have the essential features of the object. If, however, it is necessary, add the least possible outline to complete it; but take every advantage of breaking the outline at *points where there are high lights on the model.*

A detailed pencil drawing is essential for some time to come. Freehand drawing with the pen may be possible eventually. The subject is discussed later on, when we come to sketching in general as distinct from drawing from separate models. While the work is restricted to drawing from single objects we consider a preliminary pencil drawing desirable, for there is a tendency when working without a pencil drawing to put in the outline first and the shading later. This is the wrong order of things, as the outline frequently proves unnecessary when the shading and modelling are complete. Moreover, by working over completed pencil drawings we make a valuable study in economy of pen line—in expressing the object by the simplest means. So we would recommend the beginner to work assiduously until he can safely increase the pace of the pen work, but to spare no pains with the pencil drawing. The pencil work will be covered with the ink, but the most careful labour spent on it will never be lost.

The drawings of the carpenter's mallet illustrate the kind of studies and their varied treatments which the beginner should carry out at this point. Other similar models should be worked from until considerable freedom is attained, avoiding models which *reflect* light to any appreciable extent, and

confining the work to drawing by light and shade as far as possible, and not in outline.

In addition to the problems of strength and direction of line, and the methods of working in suggesting the appearance of the model, we have still further to consider the matter of *tones*. The student ought not to leave this stage of his work

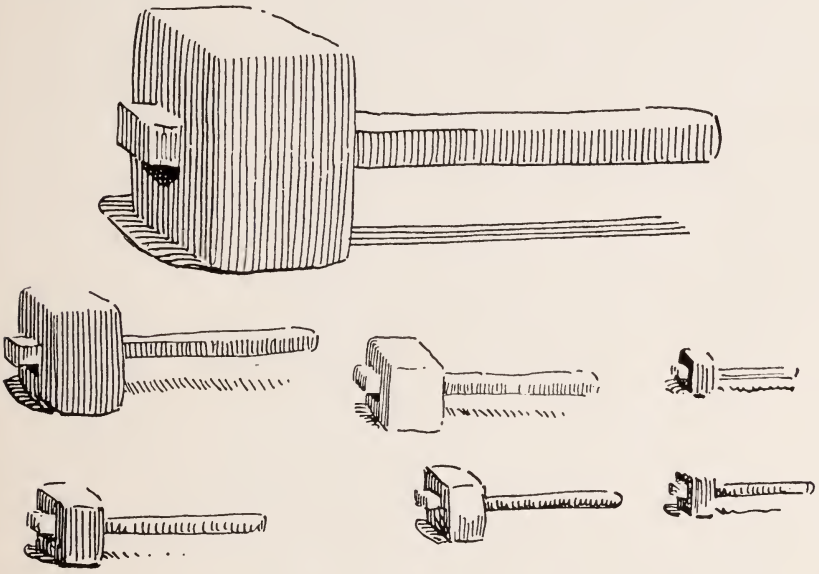


Fig. 11.

until he can produce and reproduce given grades of tone by various strengths of line.

Figs. 10 and 11, Chapter III., illustrated the distinction between *strength of line* and *tone value*, and we saw how thick lines may be made to produce a lighter tone value than thin lines. Later on we shall see that the considerations of texture and atmospheric perspective will guide us in our selection of strength of line in producing given tones.

FIG. 12.—A Preliminary Exercise for the Control of Tonal Contrasts.

The four drawings, Figs. 7, 12, 13, and 14, in this section are intended for studies in tones to be copied by the student with the definite aim of reproducing the strength of tone exactly as in the original.

In Fig. 12 we have set out to represent the relative tone

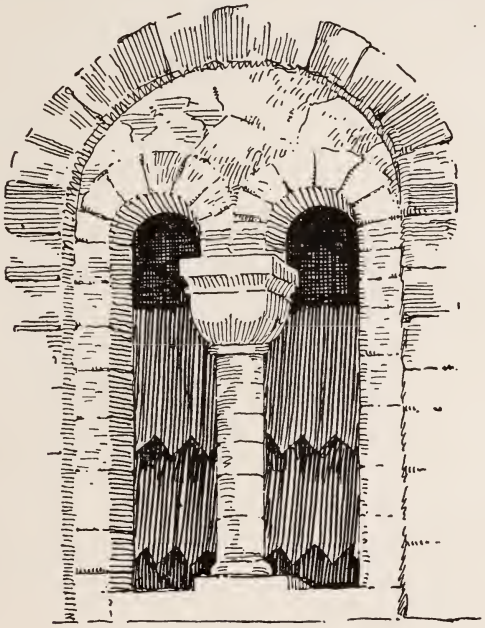


Fig. 13.

values of the different portions of the subject. Some of the detail is suggested, but very little of the texture.

There are at least six distinct tones used, ranging from white to black. (1) The white wall; (2) the lower roof on the left; (3) part of the middle roof; (4) the lower part of the middle roof; (5) the shadow in the two centre round-headed windows; (6) the blacks in the same windows.

FIG. 14.

In copying these drawings, or any of the examples previously given, the draughtsman should reproduce the exact tone and tone quality of the original. The proof of his actual

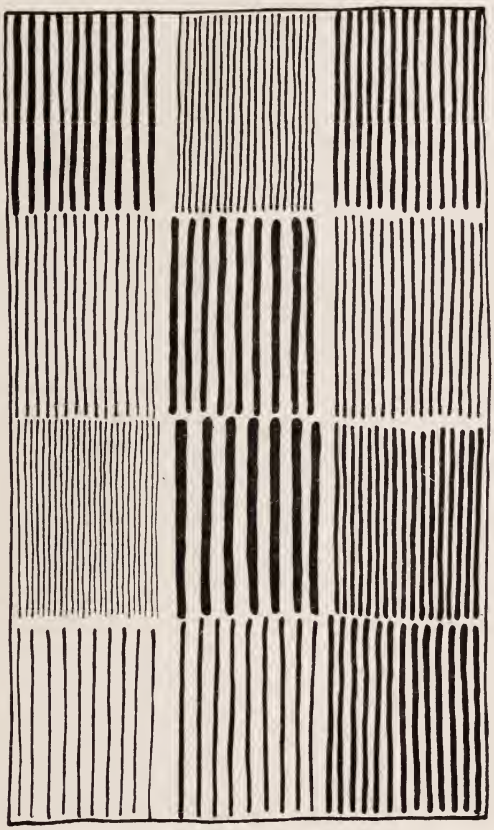


FIG 15.—Contrast of Line without Contrast of Tone Colour.

progress in pen control will lie in his ability to reproduce these drawings so that the tones of each surface are neither darker nor lighter than the copy. But if this is at first

found to be impossible, at least the *relative values* should be retained.

The ability to produce definite strength of tone and subtle

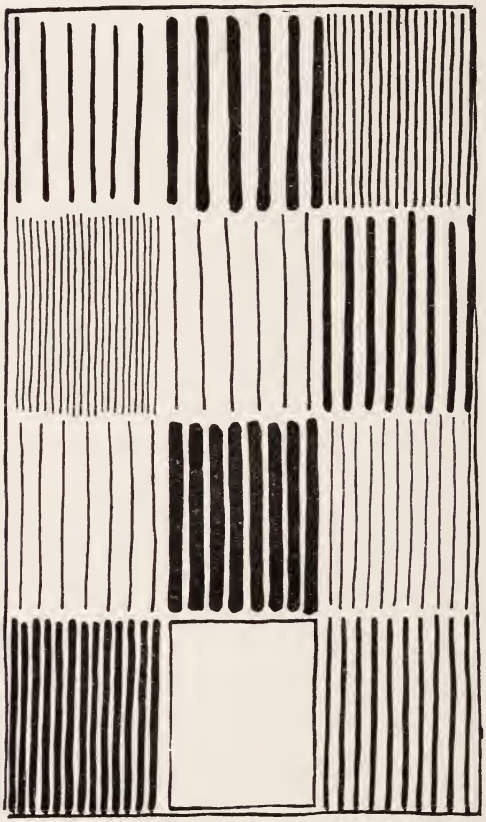


FIG. 16.—Contrast of Tone Colour.

gradations should be cultivated as early as possible. Figs. 15, 16, and 17 are three tonal charts. The first shows how a strong variation in strength of line may yet fail to produce

a contrast of tone. The second shows schemes by which a strong contrast of tone may also be obtained. The third shows an additional quality of tone colour and contrast due

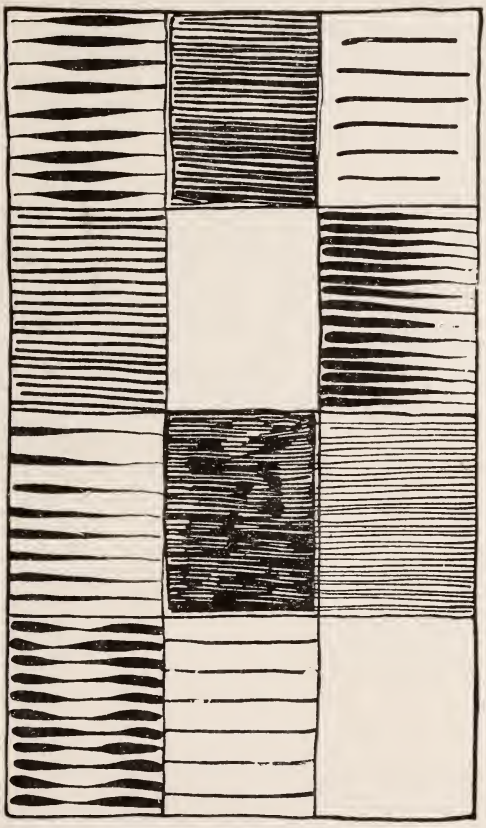


FIG. 17.

to the variation in the kind of line. The student should produce and reproduce charts of a similar kind.

With regard to the actual treatment of a subject, there

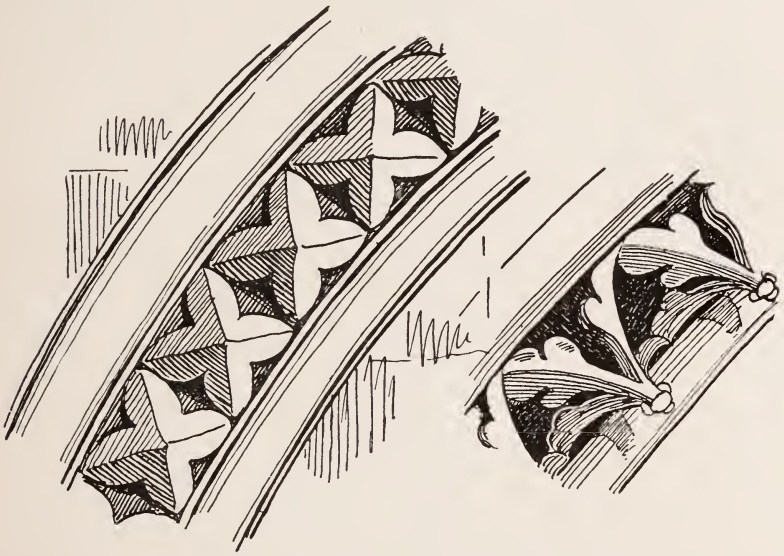
is no definite tone in pen and ink corresponding to tones in the subject. All that can be represented is the relation of one tone to another within a limited compass. The subject in Fig. 12 would have allowed of very great development as regards detail, gradation of tone, and texture. The range of tone from white to black does not admit of ex-

pansion; but the delicate gradations between these two extremes might have been carried on to an almost unlimited extent. As we proceed we shall see that throughout the process of elaboration the relative tones of the subject will be retained. This retaining of the relative tones in elaborating a sketch grows in importance and interest.

This is an interesting stage of our work, and by making

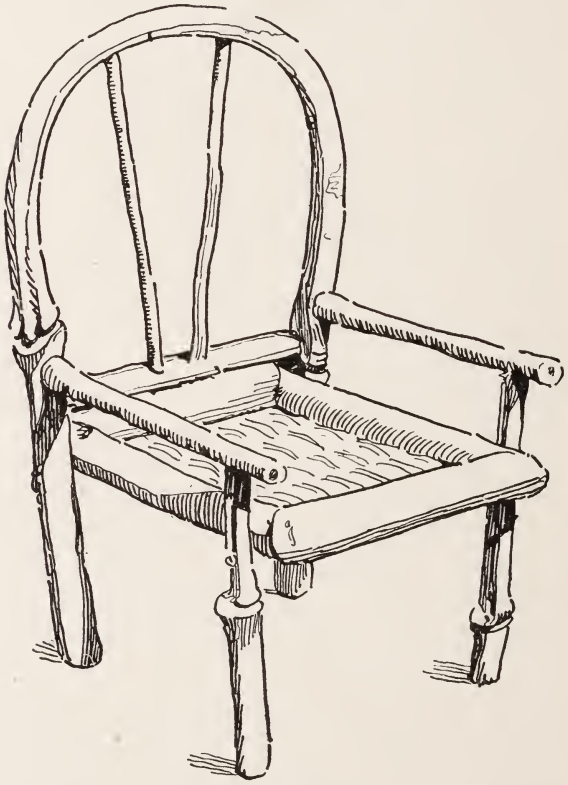
the study fairly exhaustive at this point the difficulties of producing grades of tone, of working in shadows, of eliminating outline, which confront us in later stages will more easily be overcome.

It is, perhaps, too early to expect the worker to develop originality of treatment; but any one with a natural aptitude for pen drawing may certainly begin to forage for himself. In drawing from even simple objects for



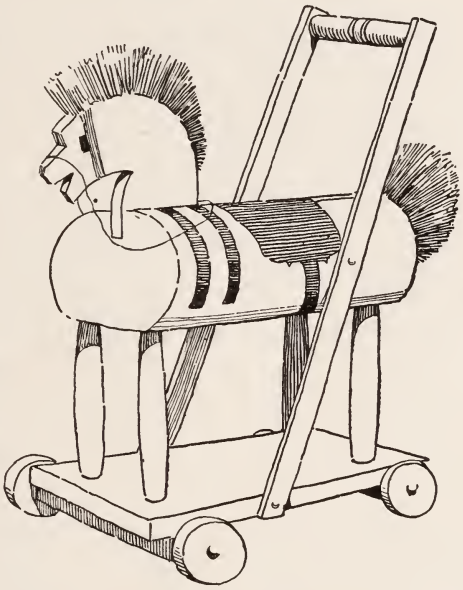
practice he will find himself face to face at every turn with new problems of interpretation. What are the relative tones? How shall we interpret them? What direction of line to use? How thick? How far apart? How can we best draw the model with a minimum of outline? All these and other problems will have to be solved. Nor will the draughtsman ever pass the stage in which such study will be beneficial.

It must always be borne in mind that copying pen-and-ink drawings may be carried up to a considerable degree of difficulty while original work is still crude and unsatisfactory. The simple explanation of this fact is that in the drawing



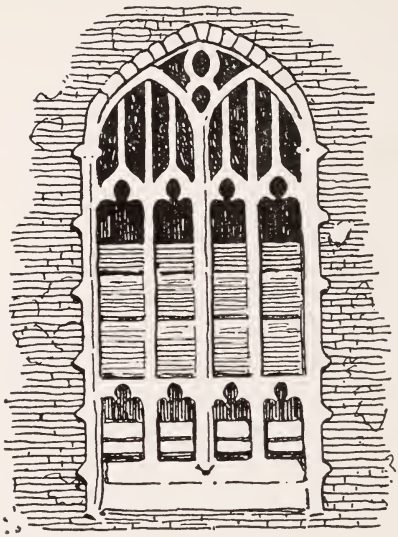
which he is copying the real problem of interpretation has already been tackled and solved, while in original work the beginner has the more difficult task of tackling and solving these problems for himself. Both copying and original work

must still be persevered with; for while through tackling the problems himself in original work the student will gain experience in interpreting his subject in the best way in pen and ink, copying from models will help him to realize how things are done after the particular method of treatment has been settled upon.



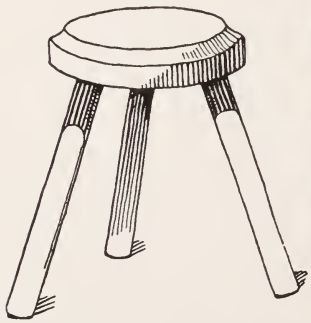
We strongly advise the choice of simple subjects at this stage. By all means copy pen-and-ink work of a degree of difficulty which is beyond the stage at which the worker has arrived in original work, always choosing open drawings, or enlarging them to the size of the original. The practice will be of value, and the knowledge and experience gained will react on original work; but the latter should be confined to drawing from quite simple subjects.

Specimens of models are shown in the wooden horse, the doll's chair, or even the door-bolt; but the most searching study in this section is that of the work-basket, for the important reason that it entails the least amount of outlining with the greatest amount of searching drawing, and also the practical application of nearly all the principles we have so far enunciated. Children's toys make excellent studies, because we may for the moment allow ourselves a little freedom



with regard to extreme accuracy of the actual drawing in order to concentrate all our attention on the matter in hand—the method of translating them in the characteristic idioms of pen and ink.

This indoor work should be supplemented by study out of doors. Here, again, the subject should still be treated as study—though these studies must be made artistic. Attempt only things on a small scale, not landscape or even cottages, but

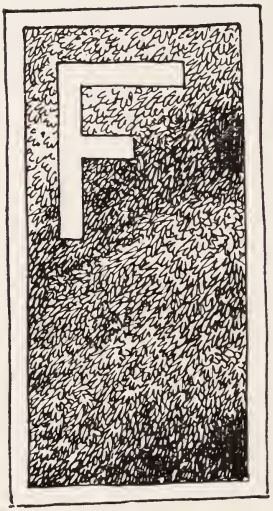


such things as small details of architecture, a stable-door handle, a wooden bucket and a broom, a water-butt, a

pump, a portion of wrought-iron work, a foot-scraper, a door knocker in sunlight, a dog kennel. It will be far better to do this kind of subject nicely than to make a muddle of a landscape or a cottage and garden. Other points of technique require our attention before the beginner can safely embark on more elaborate outdoor study.

CHAPTER VI.

FOLIAGE.



OLIAGE has always presented peculiar difficulties to the young pen-and-ink draughtsman, and especially to those with a natural bent towards architectural or figure drawing. But there is no reason why foliage should not be treated freely in quite the early stages. It is certainly desirable that it should be introduced into landscape sketches as early as possible, as its introduction opens up much wider fields in the choice of subject.

There are several reasons why foliage presents greater difficulties or stumbling-blocks than even fairly advanced architectural drawing. The principal difficulty in the earliest stages is that of dealing with large spaces of tone colour. This, a simple matter with the brush or pencil, becomes a more difficult problem, and possibly a tedious process, with the pen. It is to some extent a matter of patience. But given the patience to persevere in covering a considerable space with a certain tone, there still remains the question of the kind of stroke to be used, and the strength

and direction in indicating the modelling and character of the foliage.

The subject may be approached from different standpoints, and the technical methods will depend upon the aim of the draughtsman.

1. We may aim at strict accuracy of botanical detail, and govern the kind of line used strictly according to the nature of the foliage, the shape of the leaf, the nature of the bark, and the growth of the tree. This style of drawing foliage is more in keeping with a textbook on botany, but some draughtsmen make a serious attempt to apply the treatment to pen-and-ink landscape drawing.

2. Our principal consideration may be the *tonal value of the foliage*, but at the same time we may utilize lines which more or less coincide with the shape of the leaf, etc.

3. We may aim at the tonal values *only*, and use lines which bear no relation whatever to the character of the detail of the foliage.

4. We may combine the three methods indicated above, applying each to different portions of the same piece of foliage.

In actual practice the student should work on each of these methods, and an exhaustive study of foliage from the botanical point of view will, far from being wasted, greatly facilitate his draughtsmanship in any style of foliage drawing.

For this purpose the beginner should procure a well-illustrated book on botany, and supplement his reading by drawing specimens from life. The keen draughtsman will take every opportunity of making notes on the characteristic growth of different kinds of trees when they are devoid of leaves, noting the relative sizes and the angles at which the boughs and twigs spring from each other or from the parent trunk. The trees should be drawn both as a structural whole and in minute detail. It will be noticed that the bark seems to

split or crack, sometimes vertically, sometimes horizontally, while at other times it projects in square, oblong, or even oval sections. These characteristics will often determine the kind of line to be used, even when the tree is viewed from a distance at which the particular detail is not discernible. The three Figs. 1, 2, and 3 are studies in modelling and texture. Lines which vary in strength and in direction are freely used to

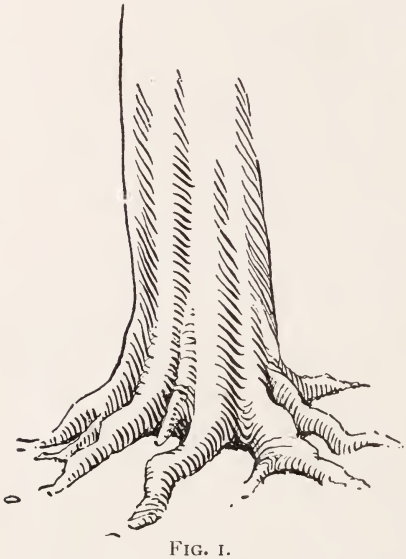


FIG. 1.

FIG. 2.

suggest the modelling or roundness, especially in the roots. The outline of the individual leaf is frequently the key to the kind of line utilized in a general tonal sketch of foliage; for this reason the shape of leaves should receive careful study. In fact, a careful detail study of all these different points will prove of inestimable value to the landscape pen-and-ink draughtsman.

No tree will appear satisfactory unless the main structural

growth is true to Nature. A tree in full foliage drawn in correct outline only will often suggest its own structure. But, as a rule, trees which do not show something of their structural growth are rarely introduced into the composition of a sketch.

Fig. 3.

This main "skeleton" controls many important factors in tree drawing; and a fact often lost sight of is that the principal boughs not only spring out on the left and right of the parent trunk, they also spring towards and away from the observer. Those which appear as springing out from left

or right govern the general outline, and the position of the extreme isolated branches ; while those which spring towards and away from the observer affect the general mass and tonal gradations of the tree. It is principally in depicting the light and shade of these latter that the effect of modelling, relief, or atmospheric perspective is produced. For these and other reasons it is advisable that the student should study foliage from life and not from drawings, so that in sketching or in introducing foliage into a pen drawing—where it is rarely possible or advisable to attempt a slavish reproduction of minute detail—he will have a collection of facts and experiences which will often actually determine the best kind of line to use ; while in decorative work such knowledge will be almost essential.

* * * * * * *

In dealing with the second method mentioned above—that is, while aiming principally at the tonal value, to allow the nature of the tree to govern the kind of line—we must draw two important distinctions in the use of the line. First, the line may indicate the *outline of a flat leaf*, such as those of a cabbage or a chestnut tree (Fig. 4). Secondly, the line may indicate the spiky detail of the tree or plant itself, as in a fir tree, or a separate blade of grass (Fig. 5). Supposing, in the latter case, where the line represents spiky detail or separate blades, we wish to show gradation of tone, we shall, in producing the deeper tones, either draw thicker lines, or place the lines closer together ; or we may combine the two methods, as in Fig. 5. Supposing, however, that we wish to show gradation of tone when drawing the leaves in outline, another important factor comes into play—namely, the significance of the white spaces. We find that the whites represent two different things. The value of the white space of the leaf drawn in outline against the sky is insignificant, and in such a

case, the white paper will represent the sky beyond ; but supposing the leaf to have a dark background, then the white space will represent the leaf, and the outline will disappear (Fig. 6).

FIG. 4.

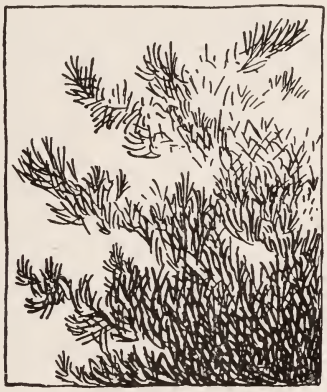


FIG. 5.

FIG. 6.

FIG. 7.

In the process of modelling foliage by light and shade these uses of lines and white spaces may be brought into play in a single piece of foliage. For instance, at the extremities

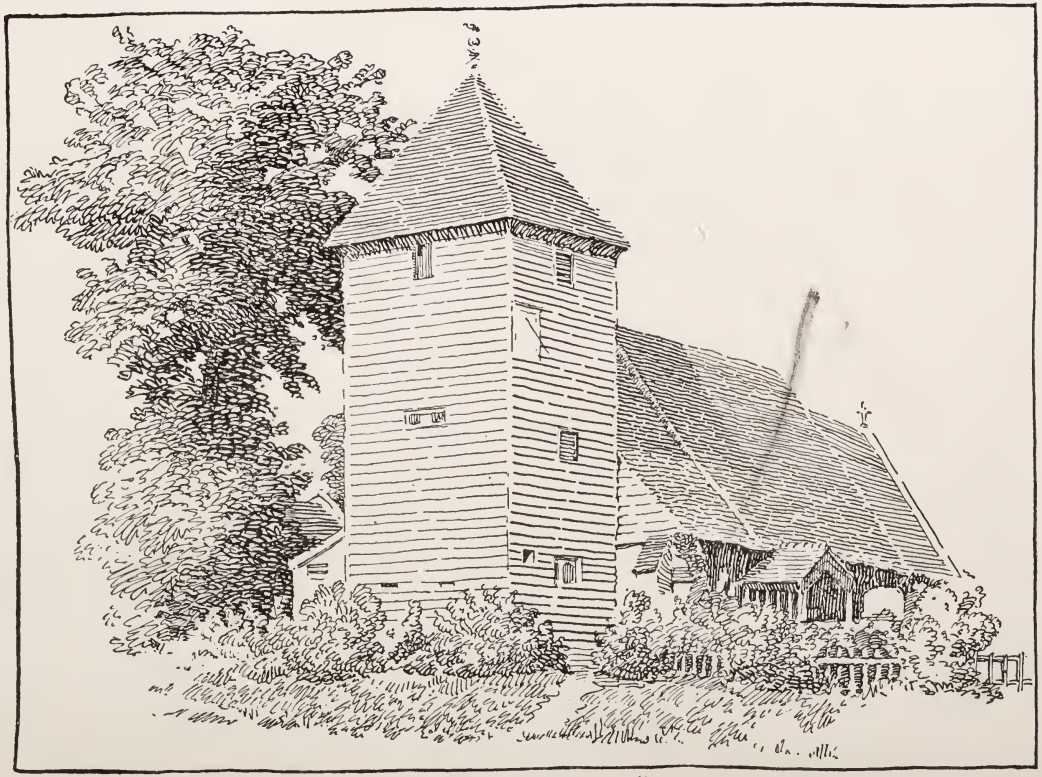


FIG. 8.—A Study in Detail.

FIG. 9.—A Study in Masses.

or isolated branches of the tree the leaves may be represented in outline, or as solid blacks, and the white spaces will then represent the sky beyond ; in the deep-toned parts of the tree the whites will indicate the leaves, and the lines—which here will be rather masses of blacks—will indicate the deep shadows seen *between* the leaves. Between these two there will be a gradual change of the functions of the lines and white spaces, and the leaf which at the extremities was drawn in outline

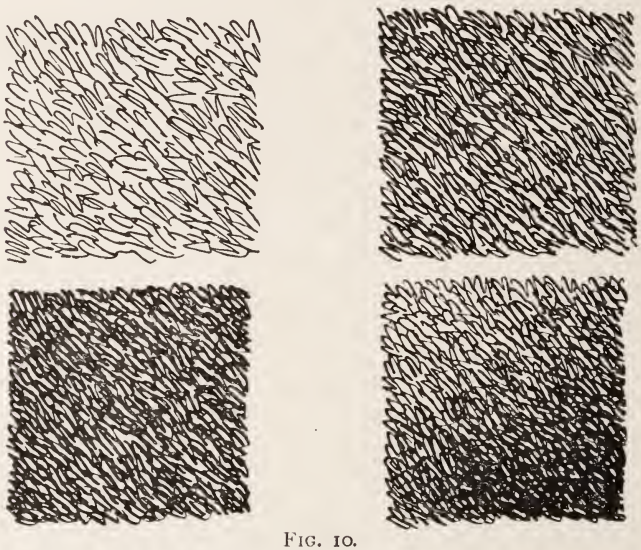


Fig. 10.

will, in the massed or deep-toned part of the tree, be represented by the white spaces (Fig. 7). If it is desired to indicate the nature or the kind of tree, the general shape of the leaf should be indicated both when outlined and when left as a white space.

This method of modelling in tones used in conjunction with lines which coincide with the shape of the leaf is very frequently adopted; and although the size of the individual

leaf on the sketch is often out of all proportion, and although it is at first a tedious process to cover large spaces in this way, the student will do well to work assiduously on these lines before he attempts to adopt the third method of depicting

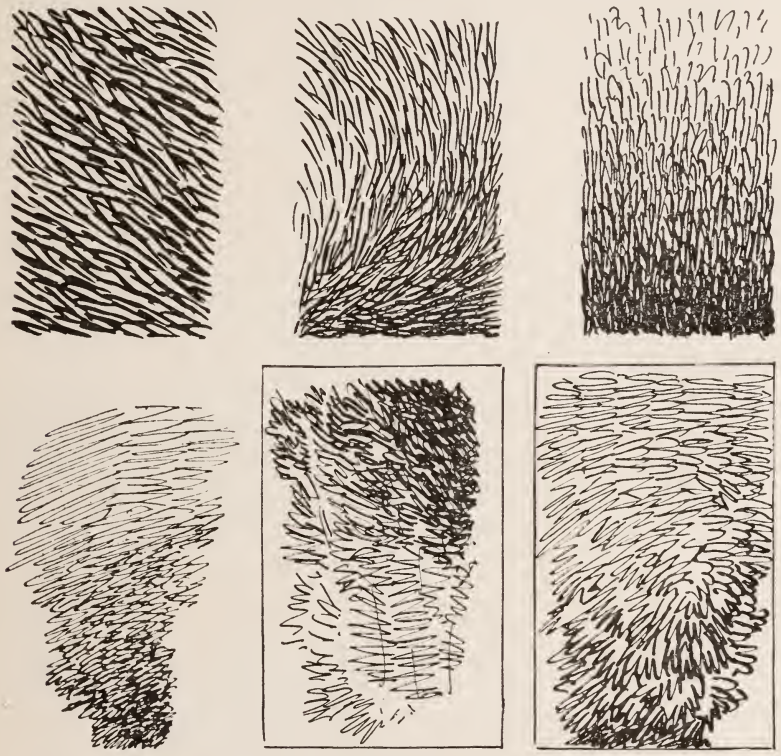


FIG. 11.

the tonal value of foliage with a total disregard for detail, even though this aspect may finally be the correct one. It is better that the second method should merge gradually into the third as the draughtsman acquires facility in pen-manship, than that he should plunge into the tonal method

FIG. 12.

unequipped with the knowledge of, and the power to work in, detail.

Moreover, the tonal aspect is of paramount importance in working by either method. Both must be regarded as means to producing tonal values. But, as a rule, there is less spontaneous life in a drawing which slaves away at detail; and, given two drawings, one true to detail and the other true only to tonal values, preference must be given to the latter if, when viewed from the proper distance, it is more sparkling with life and colour.

FIG. 13.

Our illustrations show some methods of workmanship in producing tonal values for foliage regardless of, and as distinct from, the detail of the subject.

Almost any kind of line or combination of lines used as the means of producing the required tone may be considered as legitimate, provided that the treatment does not definitely suggest something other than foliage. There are, however, certain factors which need to be considered.

With regard to the direction of lines used as representing foliage merely as tone colour, it may at first be safely recom-

mended that the lines be drawn in the direction in which the worker finds that the nib will open most readily. This will allow of a free use of the necessary gradations of strength

Fig. 14.

of line in indicating light and shade. This light and shade should be indicated as far as possible when first going over the space. The effect of patching up the lines, or strengthening the tones after the space has been once covered, is never so

satisfactory as when the right tone is produced by the right kind and strength of line in the first instance.

But direction of line is often valuable as suggesting modelling, and where direction of line is definitely suggested by the peculiar springing, drooping, or hanging growth of the model, the direction had better coincide with that suggestion, even though the precise detail is not depicted.

When it is necessary to build up a tone which has not been made deep enough in the first case, we have a choice of methods of strengthening it. We may do so by using cross-hatched lines. If this is done, we must be careful not to produce any effect which is out of keeping with foliage. To cross clean parallel linework in one direction by clean parallel linework in another is seldom advisable, and rather than regular, symmetrical cross-hatching, it is more usual for cross-hatching to aim at breaking up the effect of regular linework which suggests a false or too prominent feeling of direction. Thus we may often see one kind of line broken up by cross-hatching with quite another kind of line; and seeing that our principal aim is the production of gradations of tone and tone colour, it is possibly advisable to make a practice of this method rather than that our foliage should appear as iron grating or wire netting. Within certain reasonable limits, we are at liberty to cross any two kinds of line in foliage.

It is well to remember in cross-hatching that the effect is not the same when the lines are crossed before the first set have been allowed to dry. An added brilliance is obtained by crossing *wet* lines, especially when the crossing is not at right angles. It is a good practice to cross wet lines for deep shadows and dry lines for high lights. A contrasted effect may be produced by these means even when using lines which are otherwise equal in strength.

Another method of strengthening or building up tones

FIG. 15.—A Tonal and Textural Study in Foliage.

may be applied without resorting to cross-hatching. It is to add further lines in a similar direction to those already used, but avoiding two things—first, making them strictly parallel; secondly, making them *follow on*. Avoiding these two faults, we aim at "killing" the whites. The danger of making the lines follow on is the production of a *wiry* appearance which is out of keeping with most foliage.

Sometimes in finally building up the deepest tones in foliage shadows, we may use cross-hatched lines in more than two directions. There is no limit to the application of this method unless the drawing is intended for reproduction and reduction. The whites may become so minute in the original that they will fail to appear in a reduced print. The fourth aim in foliage treatment mentioned above is the combination of the three methods just described.

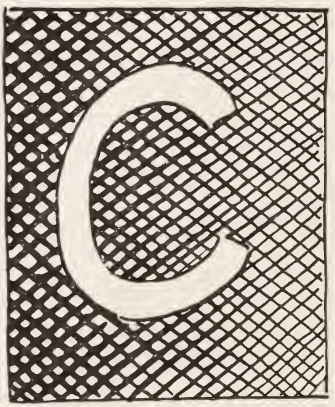
We may find accuracy of detail combined with a very free treatment. And it may frequently be noticed in the drawing of trees that while the general tones of different species may be interpreted or indicated by similar technical means, the particular species of tree is shown by the suggestion of minute detail in the extreme or isolated branches.

Whatever method we adopt when introducing foliage into pen-and-ink drawings, the principal aim should be to produce true relative tonal values, the right atmospheric tone colour, and, if possible, to make the foliage shimmer with light.

In advanced rapid sketching of foliage, beautiful examples of which may be seen in "Highways and Byways in Normandy," this tonal and shimmering aspect is the principal consideration, and while we do not recommend the student deliberately to ignore all detail, we can seriously suggest that, provided the free treatment does not get out of bounds and verge on the grotesque, detail should always be considered as subservient to tone quality.

CHAPTER VII.

CROSS-HATCHING.



ROSS-HATCHING holds a unique position in pen-and-ink drawing. Some schools consider it an artistic crime to cross any two lines; others allow cross-hatching with reservation; while some allow unlimited licence in order to obtain the desired result. But although considerable freedom must be allowed in the use of cross-hatching, it is a branch of technique which requires careful and intelligent handling. Of all branches of technique it is possibly the most peculiarly liable to misuse. For reasons other than those of mere disciplinary training or of any regard to the quibblings of certain schools, we would like to see it cut out of beginners' work.

The student should undergo a severe training in single linework before he allows himself to cross any two lines. Not until he has acquired considerable facility in expressing himself without its use should cross-hatching be resorted to; while to use cross-hatching where the desired effect might have been adequately produced without it should at all times be con-

sidered, if not a fault, certainly as a weakness of technique. In the hands of the careless student it is a dangerous weapon ; it is liable to abuse in covering up a mistake or in partially concealing some careless or ill-considered piece of work which should never have been placed on the sketch. Improperly used, it is a deadly enemy to purity of style.

Nevertheless it is a legitimate piece of technique, and as such we will consider its nature and application. First, in relation to the *effect* or quality of tone. Secondly, the practical application of cross-hatching, and the *direction* of line governing it.

The Quality of Tone.—The two great factors which influence the quality of tone in cross-hatching are (1) the thickness of the lines, and (2) the angle at which they cross. In the diagram here given we have used four strengths of line, and each strength crossing at three different angles.

The angle at which the lines cross influences the character of the result to a greater extent than does the variation in strength, and the reason for this lies partly in the value of the actual lines themselves which receive an added blackness at the places where they cross, but principally in *the value of resultant white spaces which the crossing brings about.* It is these whites which play upon the eye, and it is principally the shapes of them which produce the dull, heavy, or brilliant, glittering effect of which cross-hatching is capable. The effect of the added blackness where the lines cross becomes more pronounced when the crossing lines are added before the first set of lines is dry. If it is desired to avoid this effect, the first direction of lines must be allowed to dry before adding the second.

We will consider the shapes of these resultant whites.

In the first column of Fig. 1 the whites are squares (or rectangular) because the lines cross at right angles.

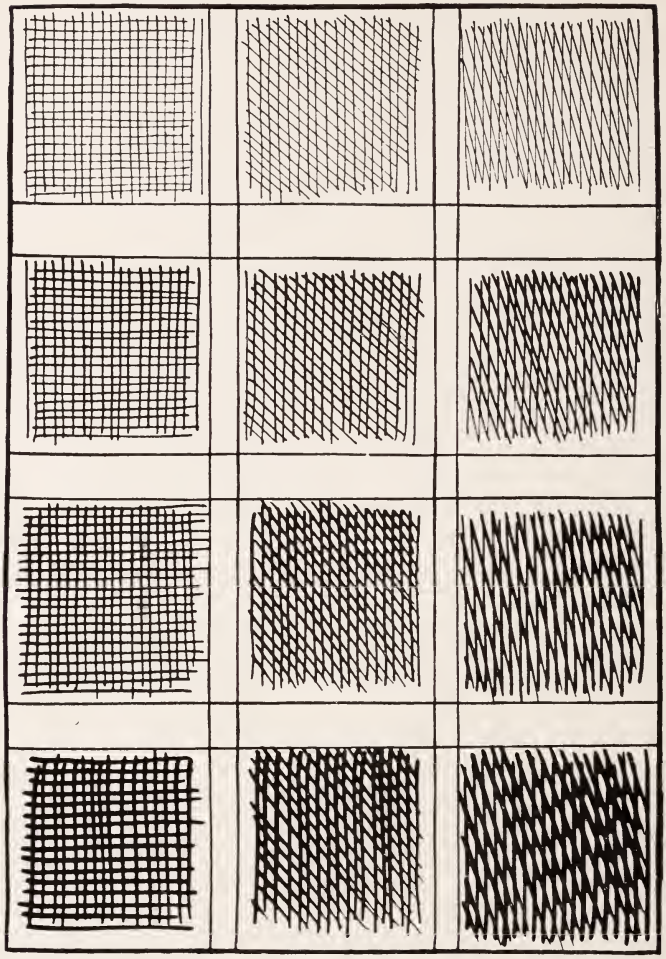


FIG. 1.

In the second column the lines cross at about 45 degrees, and the whites are diamond-shaped.

In the third column the lines are drawn more nearly parallel,

but still making them cross, and the whites now become elongated diamonds.

It is at once obvious that the further these whites get away from squares the more brilliantly do they play upon the eye, and the more vivid is the effect which the cross-hatching produces.

Let the student experiment with this on good hard Bristol board (any soft material will " pick up ") with varying strengths of line, varying angles, and with lines varying in distances apart. He will not easily exhaust the possible combinations and the varied effects.

In actual practice the strength of the lines and the angles at which they cross must be governed by the effect which it is desired to produce. Sometimes the flat effect of right-angled cross-hatching is the most appropriate, but where glow of light is required the strength and angle must be adjusted to the immediate requirements of the sketch as a whole.

The tendency in modern pen work is away from right-angled cross-hatching. As we shall see presently, the angle at which the lines cross is often governed by the modelling of the object—the two directions being governed by two schemes of modelling by linework—in which case we may have crossing at right angles or at any other angle.

But apart from this application, cross-hatching is profusely used as the means of producing the effect of light and shade or tone quality on places where the directions are not governed by any obvious factor. It is in such instances as these that we have our free choice. We see it applied in a million minor instances, and it is often difficult to discern whether the artist has applied the cross-hatching intentionally in the first instance, or whether it represents work in the last stages of building up the otherwise finished drawing. This latter use should be conscientiously avoided, or reduced to a minimum, and it may

be avoided if the draughtsman will study, first, the varied effects of crossing at all strengths and in all directions, and, secondly, apply them in the first instance, having predetermined exactly the effect he requires, and also the methods of cross-hatching he intends to use in producing it.

The Direction of Line in Cross-hatching.—Having seen how the quality of tone or the vividness of effect depends upon the thickness of the lines and the angles at which the lines cross, it remains for us to examine any factors which influence the *direction* of line when cross-hatching is used on a modelled surface.

The direction of line in cross-hatching when used for modelling may follow on similar principles to those which we have seen governing the direction of lines generally. The direction will depend upon the functions which the lines are fulfilling. We will approach the subject of direction of line in cross-hatching in the same order as that in which we treated the principles of direction in single lines. First, the direction of line as influenced by modelling. Secondly, when used for cast shadows, and as influenced by the direction of light and the shape and nature of the substance on which the shadow falls.

The example of the treatment of the wooden bucket (Fig. 1, Chapter V.) showed two definite directions of line indicated by the construction of the bucket. If it were desired to cross-hatch in the drawing of this subject, advantage might be taken of these directions, and both be utilized as in Fig. 2. In this treatment both directions of line are logically justified by the construction of the object itself, and the treatment may be considered as cross-hatched modelling.

In Fig. 3 we have discarded these two directions, and have drawn the lines in two oblique directions without any apparent justification. But it cannot be said that the treatment as in

Fig. 3 is wrong. It remains for us to see why it is not wrong. The explanation lies in the fact already stated that in cross-hatching it is the whites which play upon the eye. In Fig. 3 the lines are drawn—(1) crossing at such an angle as to produce diamond-shaped white spaces and not squares: (2) in such directions as will cause the "points" (or the acute angles) of the diamond to point upward and downward. That is to say that, while in Fig. 3 the *lines* are not vertical and horizontal, the diamond-shaped whites do actually point in a vertical direction. It is this fact which justifies the treatment as in Fig. 3. This treatment may be considered as cross-hatched *shading*.

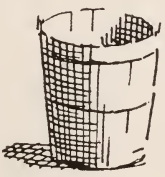


Fig. 2.

Fig. 3.

We will not attempt here to weigh the relative merits of these two treatments. The reader should do so in the light of suggestions which appear in the subsequent chapter on "Ambience."

The reader should carry out original research in cross-hatching on modelled surfaces. Perhaps its subtlest application can be found in the drawings of faces or anatomy. In these, both directions of line used in the cross-hatch frequently follow the modelling or contour of the features, or one set or direction of lines may indicate wrinkles or characteristic dents in the face, while those crossing them may be justified by the contour or modelling.

Thus we shall find all kinds of factors determining the two directions of line. We shall, moreover, find all kinds

of factors determining the directions in which the diamond-shaped whites point. The matter is a very delicate one, and I should not like to assert that such considerations have influenced the work of pen-and-ink draughtsmen to such an extent that anything approaching a strict theory and practice of cross-hatching could be evolved from their masterpieces. Nevertheless I have examined a sufficient number of cases to be able to assert that the principle is applied extensively in the best work. We see all kinds of factors at work, and we see factors of marked difference combined in application; and it may be that the principle is fundamentally right, even if it

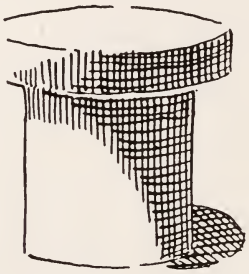


FIG. 4.

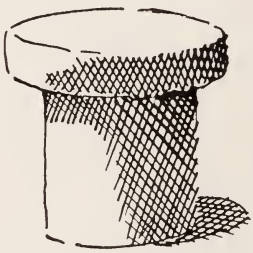


FIG. 5.

has never been definitely formulated or universally adopted in practice.

In cross-hatching cast shadows we may not be able to lay down hard-and-fast rules, but instances in which the nature and shape of the object on which the shadow falls influence or govern the direction of line are sufficiently numerous to deserve notice.

We will consider the logical justification of direction—that is, the direction which is made to coincide with the drawing, the perspective, the shape, or the contour of that part of the subject on which the shadow falls; but with this reservation, that the logically-justified direction is not neces-

sarily the best, or that adopted by the great draughtsmen *in all cases*. Nevertheless it is very frequently adopted, and the student, at least, should be in a position to justify the direction in original work.

In order to realize the two directions in which the cross-hatched lines may be justifiably drawn, we will refer back to the four diagrams of the shadow of the bracket (Fig. 1,

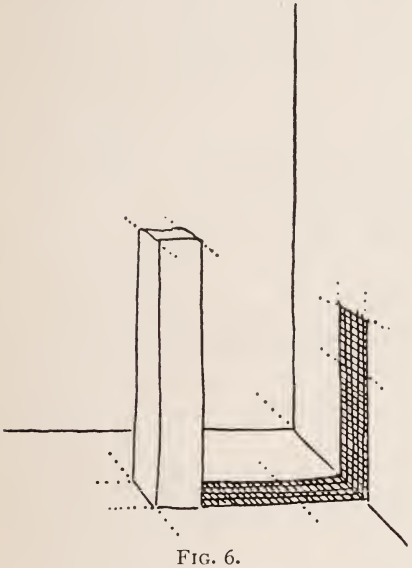


Fig. 6.

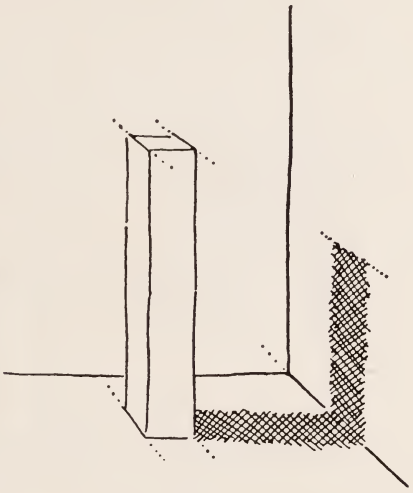


Fig. 7.

Chapter IV.), and to the eight diagrams of the shaded stopper (Fig. 2, Chapter IV.).

In these twelve examples several directions of line are employed, and some of the directions are commended on one ground or another, while others are condemned. Now let the student combine by cross-hatching any two directions of line there approved of, and he will have a clear insight into the question of logically justifying the direction of line in cross-

hatched shadows. However, let him combine directions which are not justified, or make his whites point in such a direction, and he will generally find a displeasing or an unsatisfactory result.

Figs. 6 and 7 illustrate two methods of drawing a cross-hatched cast shadow. In Fig. 6 each direction of line is justified by the perspective of the floor and wall. The result is a hard-shaped shadow which presents more the appearance of iron grating. In Fig. 7 there is nothing in the perspective or construction of the floor or wall to justify the direction of line. In this case the direction which does not follow the perspective of the floor and wall is to be preferred, and this treatment is superior to that of Fig. 6 for these reasons—it avoids the appearance of an iron grating or of anything other than a shadow; the directions of lines obviate the unpleasant hardness of the edge of the shadow; the diamond-shaped whites follow a logically-justified direction and play upon the eye more atmospherically, producing a softer, less tangible tone.

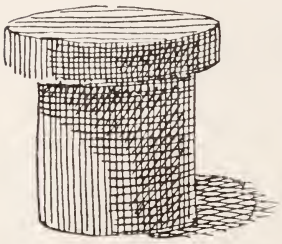


FIG. 8.

Similar analysis might be carried out with the lines cross-hatched in three directions; but as the lines become more involved so we find the treatment less prescribed. And if three directions of line are used only the first two are generally logically justified in direction. While it is advisable that the subject of direction of line should receive careful analysis, the drawings of the great pen-and-ink draughtsmen show that the artistic treatment frequently overrides the logical treatment. But, as we have already stated, the logically-justified direction is very frequently utilized. In suggesting *modelling* by cross-hatched linework *both* directions of line are frequently

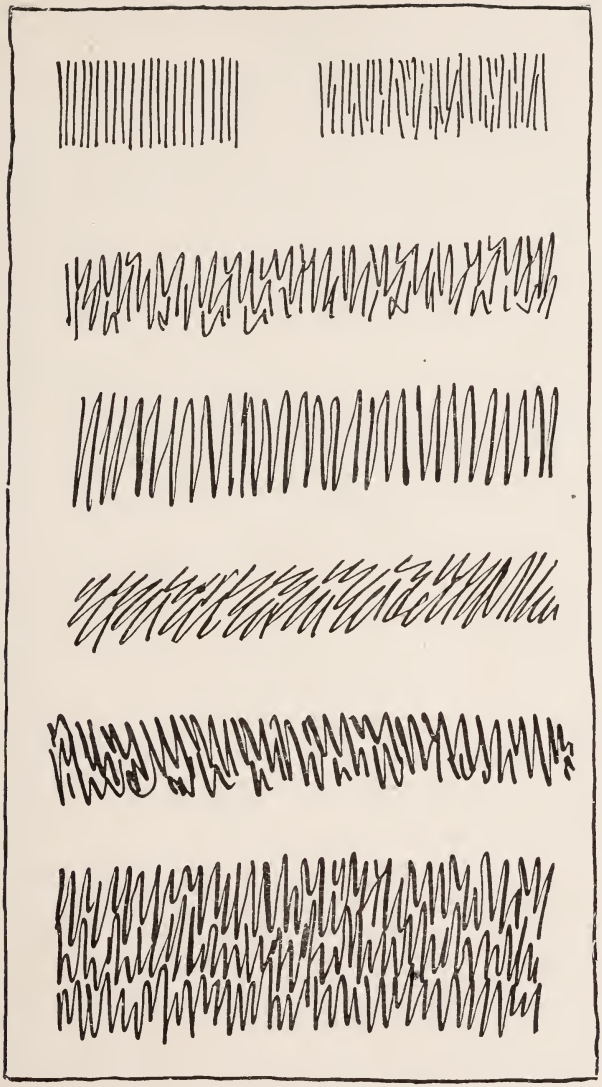


FIG. 9.

governed by the nature and shape of the object, or group of objects, on which the shadow falls, but the instances are less frequent in cross-hatched cast shadows than in cross-hatched shading or modelling.

In summing up we would recommend the student to distinguish between cross-hatched modelling and cross-hatched cast shadows. In the former case the lines usually follow the modelling; in the latter they more usually avoid it. We would recommend him to follow this practice in original work, or only to depart from it for some specific purpose or ulterior reason.

Before leaving the question of cross-hatching we may call attention to a present-day tendency in linework which is partly due to the influence of cross-hatching.

It may be considered as a development of the third column in the cross-hatching diagrams (Fig. 1). There we notice an enhanced value of effect due to crossing the lines at other than right angles.

The tendency to which we refer is to avoid parallel lines. This is done with a view to increasing the value of the line and the white spaces so that they play upon the eye more brilliantly. The diagrams on the preceding page (Fig. 9) show the development of this tendency, the general trend of which is to produce the vivid effect of cross-hatching without actually crossing the lines.

CHAPTER VIII.

THE INFLUENCE OF TEXTURE AND COLOUR UPON LINEWORK.

In the preface we stated that our simple line admits of variation in its strength, direction, and length, and that it is by the subtle combination of these possible variations that the draughtsman is able to suggest form, texture, atmosphere, ambience, and colour.

We have studied the question of *direction* and strength of line as governed by the form, modelling, construction or growth of the model, and by the relative tone values. We have now to consider more closely the quality of the line, and more especially the combination or contrasting of line values and directions as serving the *additional* function of expressing texture and colour.

Linework and Colour.—With regard to linework expressing or suggesting colour, while no pretension can be made in pen and ink to reproduce actual colour, the effect which colours have upon the eye, especially their coldness or warmth, their brilliancy or dullness, has a decided counterpart in linework, and a strong influence upon pen-and-ink technique. We must dispel any notion which the young draughtsman might form

that there is a definite association between certain colours and a corresponding strength and direction of line. No such claim can be made. The only claim which can be made is that different kinds and qualities of lines when properly manipulated or suitably contrasted and combined can be made to set up some vibration in the eye, and produce an effect similar to that produced by contrasted colours.

It is possible that the only characteristics of colours which can be represented in pen and ink are those of coldness or warmth. In the power of pen and ink to suggest coldness and warmth we have a definite relation between black and white and colour. These characteristics may certainly be

FIG. 1.

added to tones which would otherwise represent merely the relative tone value of different-coloured objects when reduced to terms of black and white.

Certain it is that parallel lines drawn in different directions play upon the eye in peculiar ways. This may be due solely to the direction of the lines, but it is also frequently due to the eye itself. Many people's eyesight is astigmatic. The effect of astigmatism is to render the appearance of parallel lines sharply defined or partially blurred according to their direction or angle. It is even possible for a person's two eyes to be unequally astigmatic.

Let the reader apply a simple test by viewing this diagram (Fig. 1), with each direction of lines held horizontally in

turn, and note whether the direction of lines varies in effect according to the angle. He may find that either the horizontal or the vertical direction is the more pronounced or sharply defined in each case. That is to say, one certain direction will always show the lines sharply defined, while at the same time the other three directions will appear more or less blurred, producing some such effect as shown in Fig. 2.

Whether different directions, regardless of quality and contrast of line, have an inherent tonal quality apart from astigmatism we cannot say; but as few people will find the lines sharply defined in all directions, it is safe to say that direction of line will play upon the eye and affect the colour

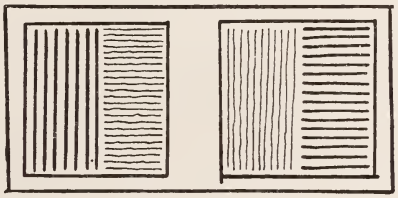


Fig. 2.

value of the line on the tone. And although the same direction—horizontal or vertical, for instance—will not be the most pronounced in different individuals, most of us will at least feel the effect of the contrasted directions.

But, entirely apart from the effect produced naturally by astigmatism (which may be considered as a defect in the eyesight), the contrasted effect of different directions of linework, in conjunction with a contrast of strength and quality, may be utilized to produce artificially upon the eye an effect similar to that produced naturally by astigmatism.

The effect may be applied in such a way in relation to the colours of our subject that the contrasted values become associated with the contrasted effect of different colours or

even with definite colours themselves. This is possibly the nearest approach to colour suggestion obtainable in pen and ink. Moreover, the eye will aid the suggestion appreciably;

Fig. 3.

for if the colour of the original subject or object is known, the eye by association will read the quality of colour into the pen drawing *if* the technical treatment is sufficient to give it the lead.

It is possible that the pen cannot do more than suggest *texture*, but that, if the pen suggestion of texture is adequate, the eye by association will read the added quality or suggestion

FIG. 4.

of colour into the treatment, even though the colours may not coincide with those of the original subject.

In our illustration (Fig. 3) there is a contrast of texture between the similarly-toned waistband and hair, but no par-

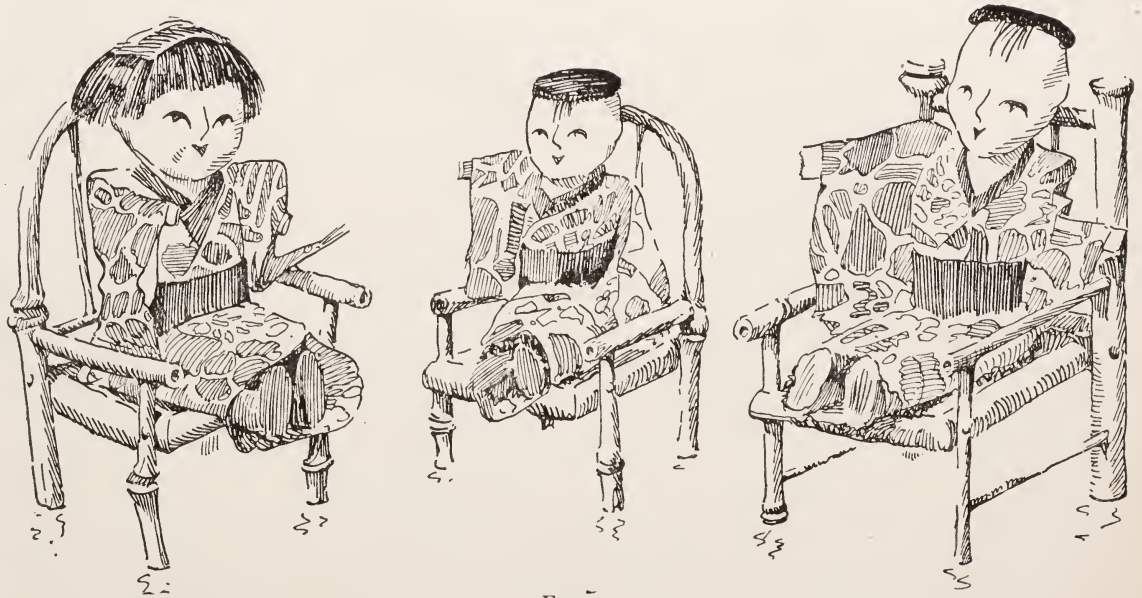


FIG. 5.

ticular suggestion of colour elsewhere. With the addition as shown in Fig. 4 there is sufficient in the treatment to allow the eye to read into it the suggestion of colour.

In this drawing, and in Fig. 5, the multiplicity of directions and strengths of lines suggests the familiar Japanese colouring. And although we will not go so far as to say which particular tones represent the greens, reds, and blues respectively, it is fair to claim that the suggestion of the familiar colouring is present.

In the trappings in Fig. 6 the colours suggested are possibly red on the upper diaper material, and, on the other, white cloth with an indigo blue border.

So, too, with different parts of a landscape: a strong suggestion of texture will lead the eye to read into it the suggestion of colour.

Texture.—The problem of representing texture is much more feasible than that of suggesting colour.

First, what is *texture?* Texture, according to the dictionary, is *the peculiar character of a solid.*

Secondly, what test shall we apply to a drawing in examining its quality as suggesting texture? The test shall be this, Does the drawing suggest the peculiar character of the surface of the solid portrayed?

In the light of this description of texture the student should analyze the drawings in the previous chapters, asking himself whether the drawings suggest the peculiar character of the surface of the objects portrayed.

The drawings suffice to make it clear what *objects* are represented, but in many cases the treatment has not been sufficient to indicate the material with which they were made—the peculiar character of the solid—in other words, their *texture.*

The quality of texture may thus be thought of as a thing apart, and as quite distinct from the subjects of form and

FIG. 6

relative tonal values ; but, far from being detached from these subjects, the technical means of suggesting texture have to be interwoven with the technical means of suggesting form and tone value. There may be a set of lines used exclusively for suggesting texture, but, as a rule, it is represented by an *additional* function which the lines already suggesting form and tone value have to fulfil. Sometimes form and tone value may be all we need, or wish to represent ; but if any suggestion of texture is required it must be added to these, and produced simultaneously with them.

Moreover, the introduction of texture brings into play a new factor, which will exert, as we have seen other factors exerting, an influence on our schemes of linework. It is more often a quality which has to be added to other qualities, but sometimes its influence may predominate. That is to say, the principal functions of the lines may be the representation of textural quality; but at the same time the lines and treatment will adequately suggest form and modelling.

The accompanying drawings, and a close analysis of the methods employed and the reasons for applying them, are intended to suggest the lines on which the young student should carry out original work. He will thus see that the proper equipoise of the central idea or beauty of the sketch is maintained not by the forces of different factors pulling against each other, but by their combined influence producing the right balance of effect. " Fido " (Fig. 7) is a study in modelling by tones, in which texture exerts an influence over the whole treatment. The model was of a gray colour, with white bow, black ears and nose, black and white eyes, and a red tongue.

As a Tonal Study.—In commencing the treatment we first decide upon the tonal scale, using (as we generally do also in landscape work) the full range from white to black. Having found the places on the model representing the two extremes

FIG. 7.

of tone, we ascertain which part of the model represents the nearest "half-way" tone. Taking these three tones as fixed intervals in our tonal scale, we adjust all intermediate tones

and "semitones" in relation to them, never allowing any tone to be lighter or darker than the next tone above or below it.

The Direction of Line.—Meanwhile the direction of line is everywhere governed by the nature or growth of the material. Attempt to draw the lines at right angles to the directions here shown, and, while we might still indicate the modelling, we should destroy the effect of texture, and lose the distinctive character of the model. Cross-hatching is used on the nose, and these two directions of line may be considered as justified by the rough-woven texture of the material.

Strength of Line.—Variation in strength of line is used from two different aspects. On all parts of the subject except the glossy ears the variation in strength is only slight, and while there *is* a slight variation in strength the principal means employed in obtaining gradations of tone is that of drawing the lines closer together for the deeper tones which approach the depth of tone in the ears, and farther apart, or well separated, for the high lights which approach very nearly to the whiteness of the bow.

On account of the blackness of the ears, but more especially by reason of their glossy texture, much thicker lines are used in their treatment. By applying different strengths of line in this way, we are able to suggest texture at the same time as we indicate modelling by light and shade.

Note that the use of outlining is strictly limited, and that the deepest tone on the gray body never reaches the glossy tone of the ears, or the lightest tone, that of the bow.

* * * * * * *

The Gollywog (Fig. 8).—So many of the technical points already treated of under different aspects are requisitioned in this study that a detailed analysis of their application here cannot fail to assist the young draughtsman in original study; and we will suggest some of the problems, and methods of

Fig. 8.

solving them, which face us in drawing from life from such a model—in portraying the character of this peculiar solid.

The hair is a glossy jet black. In treating it we have to suggest growth, texture, and light and shade. The growth will determine the direction of line, and the colour will determine the tone. Its glossy texture demands a bold black-and-white treatment, the high lights shining out white against black. The texture must be that of a black, glossy material, and not of a dull, deep gray material.

The face is likewise black, but the texture is different to that of the hair. In the first case we have a shiny black; in the second case we have a deep, dull gray. And while the face reflects light, the reflections are more general, more diffused, less sharply defined than on the hair. The effect here must be of a deep-toned, dull-textured cloth, and not of a black, glossy material.

The clue as to the direction of line to be used on the face is not so obvious as in the case of the hair, where the growth definitely determined it. Cross-hatching might have been justified by the fabric of the material; oblique strokes would have had no justification whatever; vertical lines might have been used, but a horizontal direction was chosen, partly because it is justified by the fabric of the material, partly because vertical lines would have detracted from the upstanding nature of the hair, but principally because the horizontal lines lend themselves more readily to suggesting the modelling and contour.

The coat is blue, and shows some modelling by light and shade, but there is no tone in it as deep as the tone of the face, with the exception of the shadows in the coat-tail. This shadow must be of a duller tone than the hair, or even than the face. It is a deep gray which reflects no light.

The direction of line to be used is not obvious. If treated freely and rapidly, almost any direction would have sufficed; but in a careful, searching study, and considering the "hunched-up" effect and coldness of the blue colour, and the vertical "cylindrical" modelling, a horizontal direction was chosen.

The waistcoat is white, and the modelling and shadows must be of a soft tone.

The trousers are red, and show a certain hang which would have justified the use of vertical lines. Adopting a vertical direction would make the subtle grades of tone in the shading more difficult to indicate. It might also have suggested a vertically-striped material. The vertical cylindrical modelling by horizontal lines is more in keeping with the general nature of the model.

The blacks of the eyes are glass beads, and the reflected light on them is very sharply defined. The beads project, and cast a shadow on to the white bone circle. This shadow

FIG. 9.—A Study in Textural Grays and Whites.

falling on a white, shiny surface must have more luminosity than a shadow falling on a dull, non-reflecting material, but to have elaborated this shadow would have tended to destroy the shiny whiteness of the bone. A single line suffices to indicate it.

We have chosen these models because they are probably familiar to the reader, but similar close and detailed reasoning is applicable to any and every kind of subject from a single model to the details in a landscape drawing. Moreover we must admit that in many respects other lines of argument, considering other factors as being of greater importance, might have led to different treatments in some respects. We are not pretending to lay down absolute laws for the drawing of gollywogs, but merely indicating the method of workmanship in dealing with different factors which exert counter influence, and which have to be weighed as to their relative degrees of importance in conjunction with all other factors.

Working on broad lines, we have to make several distinctions and contrasts. The general distinctions in textural quality are, as a rule, between two abstract qualities: smoothness and roughness, reflecting and non-reflecting; or in such considerations as between soft-edged and sharp-edged, porous and solid; between a solid reflecting body and a mixed or less tangible reflecting material; and we shall generally find some textural characteristic in the subject itself which will suggest some corresponding kind or quality of line.

In the technical means of portraying texture we may use any kind of line, from small dots, or clusters of dots of different sizes, up to strong black lines well separated; we may use short lines or long lines, cross-hatching in all directions and strengths, thin lines drawn close together, lines of different strengths, lengths, and directions combined—in fact, we may use almost the utmost resources of our medium and combine

the different kinds of strokes in unusual or novel ways in indicating texture. Moreover, we would advise the student never to be afraid of experimenting in unusual combinations, and also never to cease searching for textural detail and quality, and the technical means of portraying it; always viewing the subject first as a tonal study, and then adapting or modifying the treatment of the linework to meet the demands of the texture of the subject.

The subject of texture is a far-reaching one, which we cannot pretend to exhaust in detail. Nothing but original research and practice will suffice, and the student should always be practising mentally as well as with the pen. For instance, let the student mentally picture to himself what strength of line, or what kind of line, and how far apart he would use for the following textural contrasts—black crape and black satin; an ordinary white tablecloth and white American oilcloth; chamois leather and a piece of brown paper; a bath towel and a newspaper; a Turkey carpet and a Japanese mat; a zinc pail and a flower pot; a bowler hat and a tall hat; a wooden spoon and a silver spoon; a piece of oak and a piece of cedar; a whitewashed wall and a sheet; a holly tree and a box tree; a shiny boot and a dubbinned boot; an old wall and a new wall; a Christmas pudding, a sponge, and a football; running water and a still pool. Let him still further consider how he would modify his treatment in an attempt to indicate light and shade on these in addition to texture, and also how he would treat them when in shadow. From such considerations, and in conjunction with the examples given above, he will soon learn many tricks in suggesting texture.

CHAPTER IX.

SKETCHING FROM NATURE.

We have three of our biggest subjects—namely, Aerial Perspective, Sky Technique, and Ambience—yet to deal with; but so much may be done in applying the different branches of technique with which we have already dealt that we are going to advise the young student to carry out extensive sketching from Nature before attempting to apply the technique which properly belongs to these three remaining subjects. And in view of the fact that this book is intended as a guide to draughtsmen new to the art of sketching in pen and ink, as well as a help to those who may have obtained some considerable facility in the medium, we must treat our subject from the elementary as well as from the more advanced point of view. For the more advanced student this chapter must be read in conjunction with the three subsequent chapters, and the technical points dealt with there must be used in conjunction with the hints given here.

The power to sketch develops progressively. Through experience and practice extended over some years we gradually accumulate technical ability and enlarge our artistic outlook, attain facility combined with certainty. Our technical powers develop and our artistic perception expands; they swing ahead alternately, and at every swing each brings the other up to a higher level.

Sometimes it may be that a man's technical powers are far ahead of his originality of perception; he is able to copy but not to create. Sometimes the reverse is the case; he sees the charm in Nature, appreciates the beauty of some draughtsman's technique, but is quite at a loss to reproduce the effects with the pen. In either case the experience gained from constant practice is the only road by which we may advance.

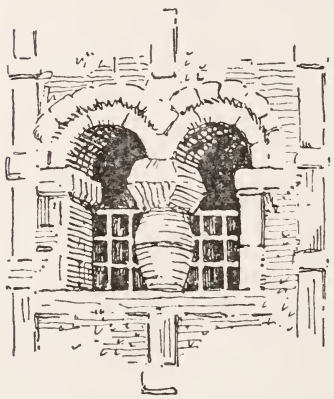


FIG. 1.

So the young draughtsman must not be disappointed if he finds that he cannot rush straight on ahead of the stage at which we have now arrived in this little book. It will come in time. It may be that he will have to wait for his hand to develop, for his eye to see deeper into the beauty of Nature. It may be that he will need to know more of colour work, to realize its exquisite technique and the beauty of the colours. It may be that he will need to acquire the habits of perseverance, concentration, and patience, and to learn the charm of solitude. In any case he will require to bring his technique gradually along stage by stage, for in all stages we must work successfully, not so much to save us from despair as to cultivate or maintain a personal and deep-seated love of

our art. Much can be done in applying the technique and exercising the powers of observation and reasoning which the student should have acquired in studying pen and ink as far as we have gone, and, more fully equipped, he may be trusted to attempt outdoor work of a more elaborate nature than that suggested in a previous chapter, while more intricate indoor studies may be chosen suitable to his artistic inclinations and ability, and in accordance with the individual style he may wish to develop.

A Recapitulation.—Whatever style we may develop, the elements at our command are the same, and their application

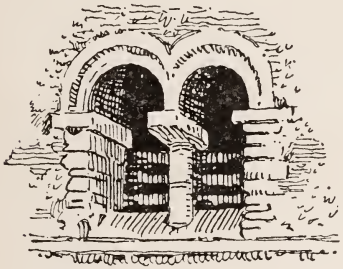


FIG. 2.

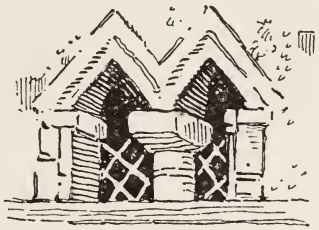


FIG. 3.

similar in fundamental principles. They have to be utilized and combined to fulfil the various functions of which they are capable. The methods of workmanship indicated in early chapters—such, for instance, as the treatment of the bucket, the door bolt, and the gollywog—are applied in the drawing of a figure, a cathedral, or in the details of a landscape. As the subjects become more ambitious the student will need to apply in all sorts of unexpected places the principles which have been enunciated in the chapters dealing with the purely technical aspects of our medium. We are not now embarking on a new subject, we are merely applying the fundamental principles on a larger scale, and combining them for a greater diversity of purpose.

Our lines may be said to allow of three main variations, and through these variations to be capable of fulfilling three main functions. We have at our command lines which allow of variation in their strength, direction, and length, and the functions which these have to fulfil are to indicate the shape of the object—to indicate its light and shade or its tone value, and to indicate its texture or peculiar qualities.

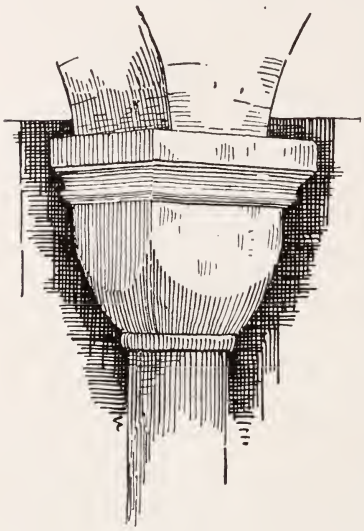


Fig. 4.

These represent, as it were, our palette, and with elements so simple and the demands on them so great, we may well wonder at the exquisite juggling feats of some of the many pen-and-ink draughtsmen.

Some objects are quite adequately pictured in linework; but we desire to interpret objects having many other characteristics in addition to a suggestion of lines—some objects, indeed, being devoid of a natural suggestion of linework altogether. It is more especially in this latter case where the problem of linework presents its difficulties, and the problem is to use the right kind and direction of line, and to make it fulfil its proper function.

Where these difficulties of interpretation appear, the student must search his subject, and each part of his subject, for clues, especially as to direction of line. He must call to mind one by one the different factors which may determine his direction of line, and I firmly believe that diligent search will more frequently reveal a choice of direction than a com-

plete absence of any clue. Nothing is weaker in pen-and-ink drawing than an aimless or unintelligible direction of line-work; it represents the last stage of poverty-stricken technique. If he cannot find a logically-justified direction, he must consider purely the compositional needs of his sketch; but an illogical direction is generally weak, and should be avoided except where applied for some specific and artistic purpose. He must still further search his subject for "textural" clues, which will, in conjunction with tonal qualities, often guide him in his choice of the kind or strength of line which it is best to use both as regards the detail itself, and in its relation to the tonal scheme of the completed sketch.

Outlining is now becoming more and more unnecessary, and in any but a pure outline drawing all three functions of the line come into play. From a little experience in original work we shall soon realize the necessity of combining as many functions as possible in as few lines as possible, for it is part of the creed of the pen-and-ink draughtsman that he must never use two lines where one will suffice. If, then, we can so place our lines that they can be made by utilizing their strength, direction, and length, to serve for all three functions —to suggest shape, tone, and texture—at one and the same time, we have learnt one of the greatest lessons in penmanship.

Sometimes we are forced to use three separate sets of strokes, each set being exclusively used to indicate shape, light and shade, and texture respectively. At other times the different functions become, as it were, interwoven in a general scheme of linework. And it should always be our aim so to interweave our technical means that no effort of technique is apparent in the finished drawing.

Freehand Pen Drawing and the Preliminary Pencil Drawing.—The preliminary pencil drawing has already received some slight attention, but the remarks need to be amplified.

As to whether one should aim at freehand pen drawing—that is, drawing with the pen without preliminary pencil work—it is principally a matter of individual skill, though sometimes it is a matter of great artistic importance. Few will attain such a degree of accuracy of drawing and control of pen line that it will be successful or even possible. In the hands of a really accomplished draughtsman certain subjects undoubtedly lend themselves to such treatment, and, adopting it, the work will gain in spontaneity of effect; but unless the sketch gained in quality or spontaneity of effect such freehand pen drawing would have no merit as a mere achievement. The pencil drawing on page 28 shows a freehand sketch completed in pencil. If such a subject were to be drawn in pen and ink, the preliminary pencil sketch might consist of either a few constructive or "plotting" lines, or of the whole subject carefully drawn in detail in pure outline, but in either case all half-tones or shading should be eliminated.

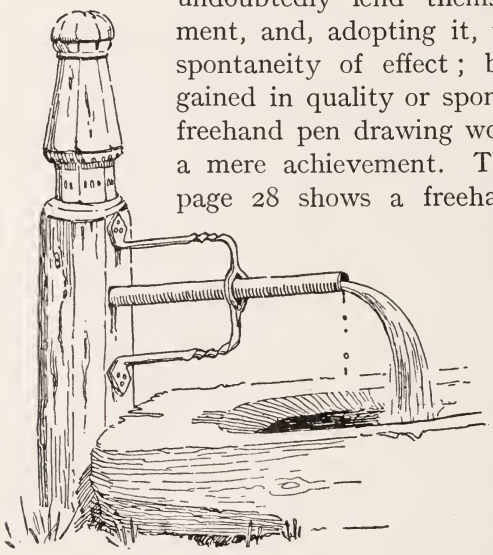


FIG. 5.

When the draughtsman finds that his original pencil sketch from Nature is invariably accurate, when all his curves are correct in the first instance, and when he has had some considerable experience in working over elaborate pencil drawings, and also over those in which the subject is merely plotted in a few strokes, freehand pen drawing should certainly be

attempted and persevered with, and no student should be satisfied until he has experienced the subtle pleasure of drawing successfully freehand with the pen.

For the moment we will assume that the power of freehand pen drawing has not yet been acquired. We not only recommend a preliminary pencil drawing, but we suggest that this pencil drawing should be really well done.

At times it may suffice merely to " plot " the main features of the subject in pencil ; but while it is impossible to indicate

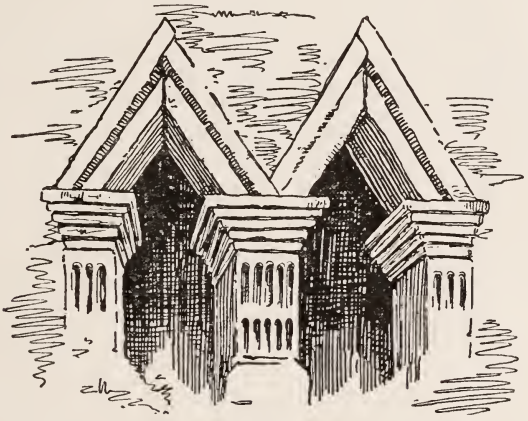


Fig. 6.

the actual amount of preliminary pencil drawing suited to all occasions, the draughtsman will be well advised to spend the time and trouble necessary to make it accurate and sufficient, and no errors in pencil work should be left to be corrected in the pen drawing.

Slovenly pencil drawing can never be conducive to satisfactory pen work, and if the subject cannot be drawn well with the pencil it certainly cannot be achieved with the pen. The pencil drawing had better be carried to a greater degree

of perfection of detail than is eventually required in the final pen sketch rather than that the sketch should suffer for a want of care in the preliminary stage.

There are several stages through which the draughtsman will probably pass before he will hit on the right amount and the best method of treating the pencil drawing. The first stage will be the inking over his pencil lines, and one danger of an over-elaborated pencil drawing is that of allowing the pen drawing to become merely a pencil drawing inked over. This method of working will be quite satisfactory in early pen work; but it is obviously not the ideal method. Until the student is able to visualize at the outset the final effect of the sketch, and to retain that mental picture throughout the process of plotting his composition and elaborating his detail, working in ink over the lines of an elaborated pencil drawing will be of great value, and can do no possible harm. In fact, it will possibly be the best method by which the beginner will accustom himself to the nature and value of the pen line.

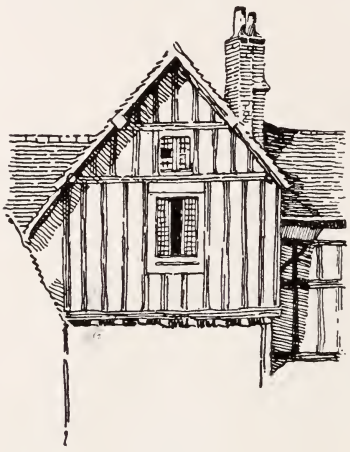


Fig. 7.

After the student has passed the stage of merely inking over his pencil drawing, he will find two processes at work. One, the elaboration with the pen of a simple pencil sketch, the other, the simplifying of an elaborated pencil drawing. Now, although the first process of elaborating a simple pencil sketch may seem to be the thing to be aimed at, the second is by far the more important. Phil May, perhaps, represents

the ideal in the "shorthand" of pen and ink, but many of his most "sketchy" pen drawings were made over pencil drawings which were perfect models of care and accuracy. The student will learn more by condensing his pen work from an elaborate pencil drawing than he will by launching into freehand pen drawing.

Therefore the young draughtsman's first attempts at pen work had better be over pencil drawings complete in every detail. In further stages of his work minor details may be left to freehand pen drawing, gradually reducing the pencil work until the subject is only "plotted" in pencil.

Some subjects will demand fuller and more detailed pencil work than others. Experience and, to a great extent, the nature of the subject itself, will teach us or indicate how elaborate or simple the drawing should be. But the ideal to be aimed at ultimately in the pencil drawing is just that amount which will admit of the highest degree of spontaneity of effect with the pen. This amount will vary with different draughtsmen. If the worker finds perfect fluency in draughtsmanship, and the greatest spontaneity and vividness of effect by working freehand with the pen, let him work assiduously by that method, and never take a pencil or rubber on his sketching expeditions. My personal experience is, that after some years' working freehand with the pen, I have returned to elaborate preliminary pencil drawings.

Pre-visualizing the Pen Drawing.—When the pencil drawing is complete the student should analyze his subject from different points of view before commencing the pen work.

First, as regards *compositional tonal relations.* And here he must decide whether the *whole* of the subject is of equal compositional value or importance, or whether minor parts of the subject are subservient to some central feature.

Second, as regards *tonal scale* and *relative tonal values.*

Third, with a view to the *direction of line* in all details of the subject, predetermining what direction is best suited to

Fig. 8.

each part, especially in those places where the direction is not definitely determined or suggested by the actual detail of the subject. These decisions as they are made may be

lightly recorded in pencil, so that the scheme as a whole may be modified either to avoid an unnecessary or conflicting multiplicity of directions, or to increase the tonal or textural values.

Fourth, as regards variation in *strength of line* as influenced by (*a*) the relative tonal values, (*b*) the texture, (*c*) the light and shade.

Each of these processes may be gone through mentally, without even putting pencil to paper. Such practice is even essential if the student wishes to cultivate the true pen-and-ink draughtsman's eye.

Having thus mentally visualized his subject (1) as a pen-and-ink drawing, (2) as a piece of technical work, he will retain this picture throughout the working, and having a definite aim in view, the object should be to treat each part of the sketch in such a way as to entail the least amount of patching-up in the final stages. The sketch of a master pen should need little or no final patching-up; and the effect of a patched-up drawing is never so satisfactory as when every line and tone has been rightly laid on in the first instance.

The power to work in this way will be commensurate with the power of the draughtsman to visualize his final drawing, both as a "picture" and as to the minutest point of technique to be used in its production.

It should be considered as a very weak practice to cover the space with "something," and afterwards to patch it up so that it corresponds more or less with the subject before us. Such a practice should be shunned, and it may be avoided if the student will undergo the self-imposed mental discipline of pre-visualizing the effect and predetermining the technical means.

He will by such practice soon realize that things are not

FIG. 9.

always what they seem—that work which appears to be right in the course of building up the sketch is quite inadequate in its relation to the finished drawing.

Composition.—The earliest attempts at outdoor sketching should be confined to such subjects as those indicated in Figs. 1 to 8. In such studies we consider direction of line, strength of line, texture, and the compositional arrangement of our tones. Later on, the arrangement of the subject on the page becomes more involved, and the young student often has difficulty in deciding precisely what is his subject. In Fig. 9 the compositional tonal scheme is very weak. The building is white, and the rest of the sketch shows an enormous amount of meaningless white space, while the treatment of the foreground is lamentably poverty-stricken. Rather than have all this meaningless white paper and such a feeble foreground, this subject would be better arranged as in Fig. 10. In this we see very little paper which has no compositional tonal value; and to achieve this should be one of our principal aims.

A similar difficulty of composition and tonal scheme presents itself in Fig. 11. There are a great number of lines leading aimlessly out of the sketch, and the general effect is as if we did not know where to leave off.

We would advise the young draughtsman at first to limit his subjects in this way, to view them through a "mask," and to treat them as a complete whole, and never to bite off more than he can chew; for even a simple subject makes greater demands on our powers of execution than is apparent when we are first attracted by the subject, and to choose too vast a subject will inevitably result in the beginner being involved in a maze of problems of interpretation which he will be unable to cope with, and the final result will be unsatisfactory and discouraging. A most useful kind of subject

FIG. 10.

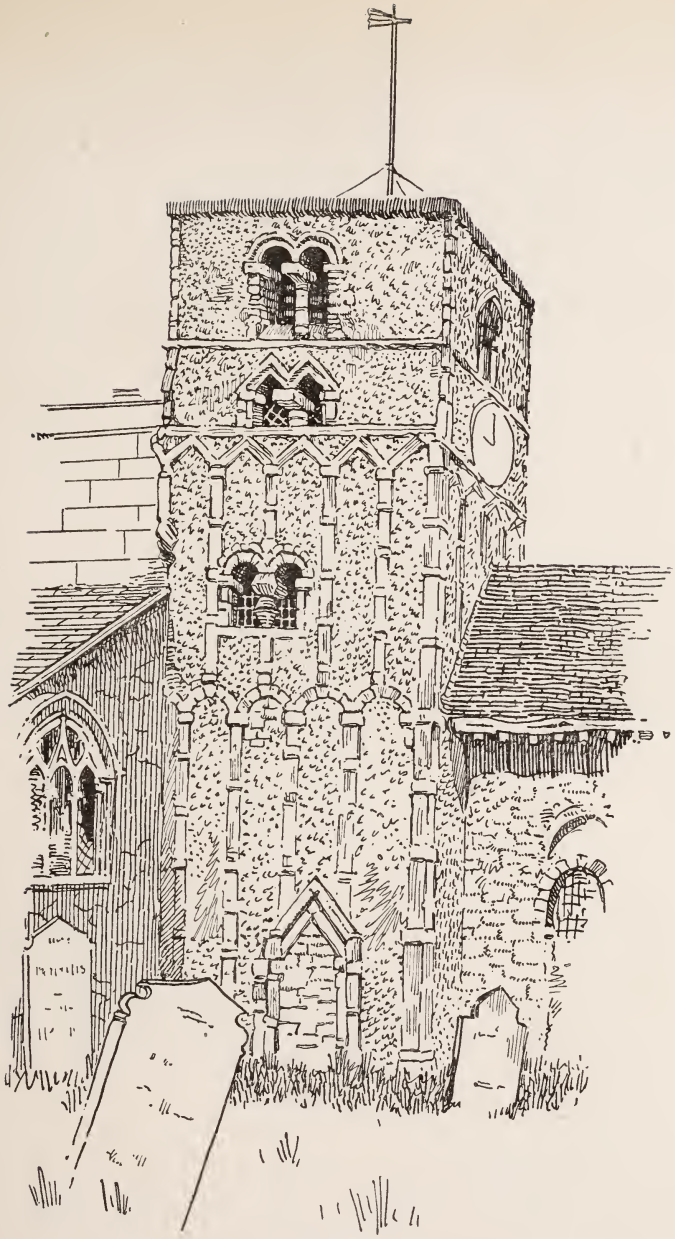


FIG. 11.

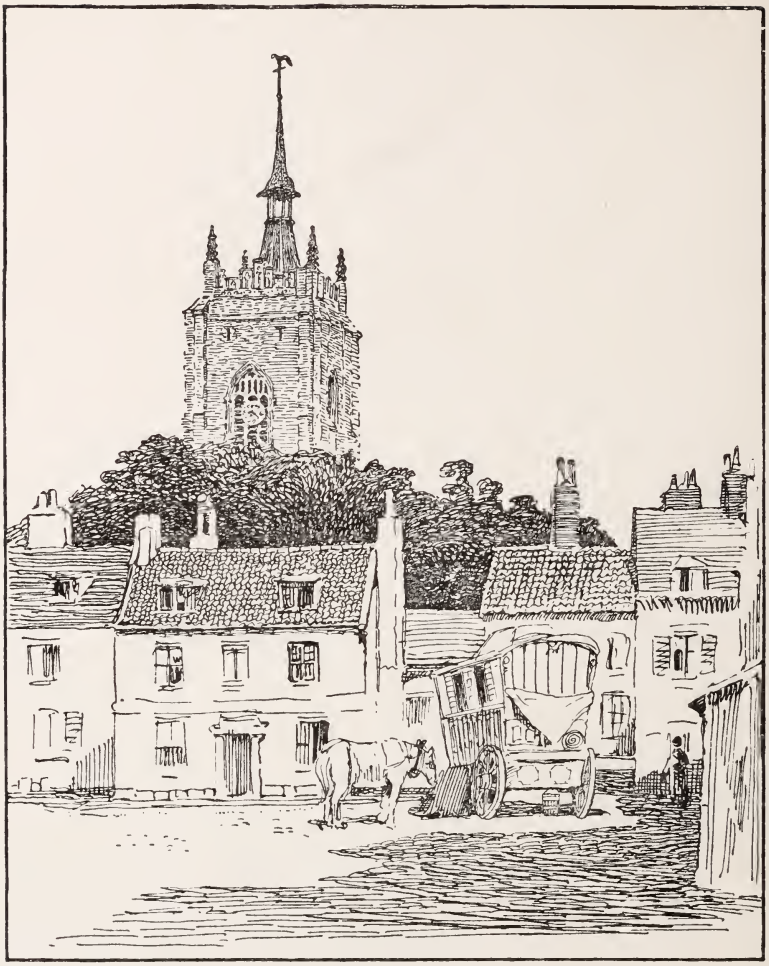


Fig 12.

is one, such as that shown in Fig. 13, where the drawing is simple, the detail limited, but sufficient to cover the space, and where the tones are few but well grouped and contrasted,

and where an excellent opportunity is afforded for suggesting contrasted textures. Here we see red bricks and tiles, gray stone, a thatched roof, and two tones in foliage.

FIG. 13.

As well as limiting the subject as shown above, and confining it to special detail, the young student should also extend the scope and treat the subjects *tonally* as in Figs. 12 to 15.

Even a limited choice of subjects such as those shown

above will afford ample scope for the early study of composition, detail, texture, and tonal values, and we would advise the student rarely to choose a subject of so comprehensive a nature that he cannot pre-visualize it as a pen drawing, predetermine his technical means in all respects, and—which is most important—achieve a final result which approximates very nearly to his original conception.

The Tonal Scale and Tonal Scheme.—The tonal scale is represented by the extremes of blacks and whites, and the number

Fig. 14.

of intermediate tones. But we need to make an important distinction, for in one sense it may be said that every sketch uses the same scale. But it is not so, for strong contrasts of tone increase the scale automatically, while to use principally intermediate tones and subtle contrasts tends to decrease the scale.

The tonal scale will depend upon (1) the degrees of contrast; (2) the proportional sizes of the solid blacks and the intentional whites; (3) the number of intermediate tones used, and the proportion they bear to the sketch as a whole.

FIG. 15.—A Tonal Study graded from a White.

Some sketches show only three tones—black, white, and one intermediate gray. The effect of others is that of a few

intermediate tones nearly equal in strength. The accompanying diagrams (Fig. 16) illustrate different tonal schemes, the proportion and prominence of the tones in the diagram being similar to those used on the sketch as a whole.

No. 1. A bold contrast in black and white without intermediate tones.

No. 2. Black and white in strong contrast, with one intermediate tone.

No. 3. A strong contrast in black and white, with a free use of the bolder intermediate tones.

No. 4. A preponderance of intermediate tones with blacks and whites less strongly contrasted.

No. 5. A preponderance of the weaker intermediate tones, with some white but no definite blacks.

No. 6. Principally white, with some feeble gray and a little black.

Fig. 16.

No. 1 is rarely found in pen-and-ink landscape, but the tonal scheme of No. 2 is occasionally used with excellent effect. Nos. 3 and 4 represent the tonal basis of most good pen-and-ink landscape drawing. In both Nos. 3 and 4 the whites represent those in the sketch which have intentional value as whites, and not merely the accidental white paper. No. 5

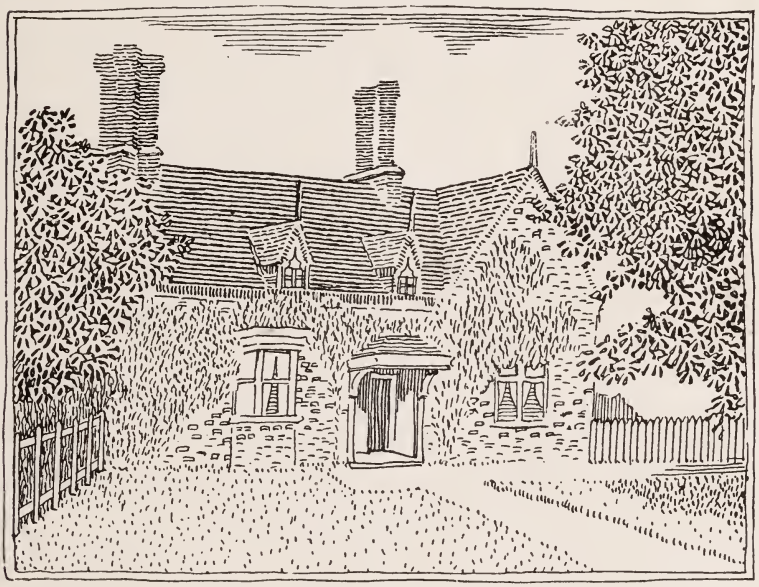


FIG. 17.—Gray Tones without Contrast.

is a weak tonal scheme ; nevertheless some styles of pen and ink are practically based on a scheme which allows of little more contrast of tone than is shown here. The tendency is to produce results such as that shown in Example 17. With a little expansion and less general distribution of the tones, this tonal scheme may legitimately be used in treating such a subject as that shown in Fig. 18. No. 6 usually represents

poverty. The whites here indicate meaningless spaces of white paper. It should be one of the strongest determinations of the young draughtsman to leave on his sketch as little meaningless white as possible. He may, in fact, measure

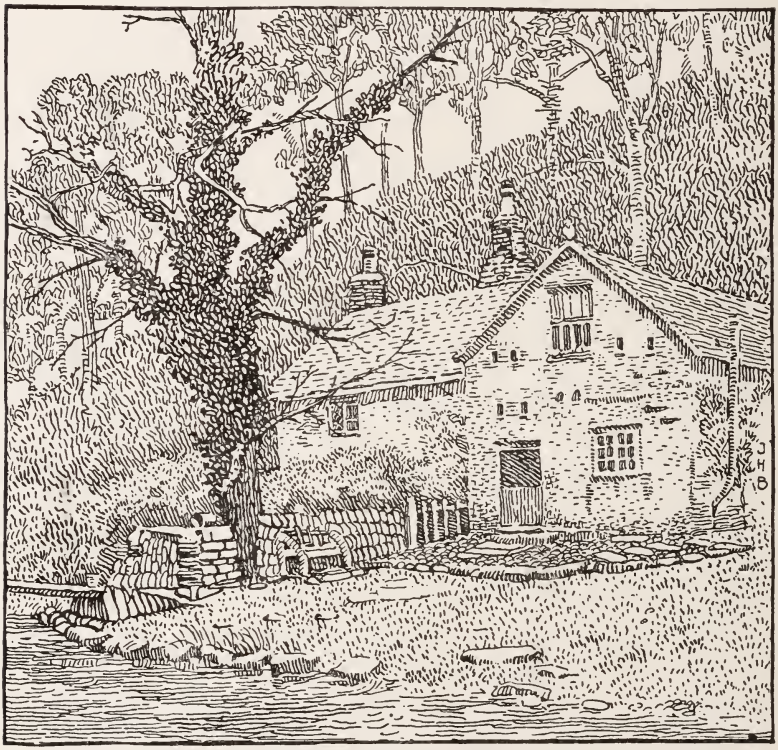


FIG. 18.—Gray Tones Grouped and Contrasted.

his progress by his power of covering his space, or at any rate of eliminating meaningless white paper.

Fig. 19 represents the process of reducing a simple subject to its tonal scheme. In this drawing nothing but straight lines

are used, and there is no suggestion of texture. In breaking up this rigid treatment we should retain approximately the relative tonal scheme and also the direction of line; but the quality of texture would be added, and, in adding this quality, the tones, even though they should still be equal as they are

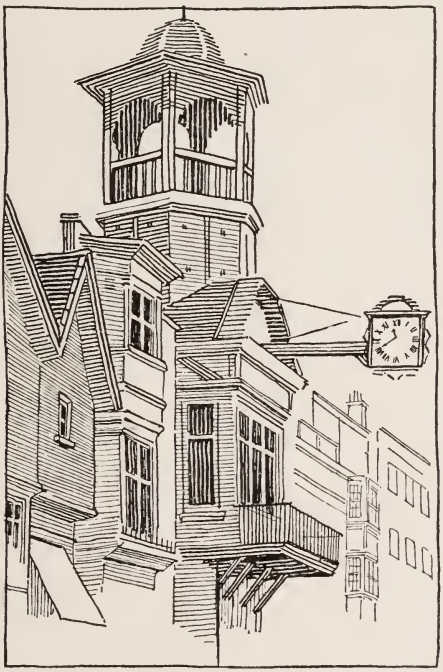


Fig. 19.

in this drawing, would receive an added textural quality which would enrich the tonal value of the sketch.

Some draughtsmen base their style on this process of reducing the subject to its pen-and-ink tonal scheme in simple linework, but the result is generally an "oily" appearance; the treatment, though sometimes producing pleasing results,

FIG. 20.—A Confusion of Tones and Textures.

is rarely sufficient to allow the eye to read into it the quality of texture.

In Fig. 20 there is a conflict between the tonal scheme and the demands of texture. An attempt to represent tonal relations, and at the same time to elaborate texture, has resulted in a preponderance of half-tones which are mutually destructive of tonal contrasts.

In Fig. 21 the tones and textures are mutually helpful. Both are well defined and distinctive, and neither conflicts with or detracts from the value of the other.

The tonal scheme is of such paramount importance that, important as other considerations undoubtedly are, they must in a greater or lesser degree be considered as subservient to it.

Methods of Building up a Sketch.—When the beginner has thus visualized his subject as a tonal sketch and as a piece of technique, he has a choice of methods of procedure. First, he may choose to place on patches of the lightest and darkest tones, subsequently manipulating the intermediate tones. Secondly, he may place on all the intermediate tones, commencing, perhaps, with one definite medium tone, and gradually expand the range of tone from this until we reach the blackest black and the whitest white. Thirdly, he may introduce each tone as it appears, and aim definitely at completing each part of the sketch in all respects when going over the different parts in the first instance. This latter should be his ultimate aim, but it will possibly be best attained by working according to the other methods first.

It is, however, rarely in the earliest efforts that a drawing is completely finished on first covering the space. We subsequently deal with this matter of finishing off the final stages of a sketch, but for the moment we advise the student to learn what lessons he can from his errors and failures before he begins to smooth them over; and at the completion of

FIG. 21.—Textures and Tones Defined in Contrast.

each sketch, or when the space has been once covered, he should recall his original mental picture, and ask himself honestly if he has reproduced it in pen and ink. He will then

realize where his technique has failed, and so gradually learn the subtle inner workings of the medium. He will learn that a treatment which appears to be right in the course of a drawing may prove to be quite weak and inadequate as it takes its place in the final sketch.

Especially in the earliest stages of a sketch the work should be free, bold, and open. The young draughtsman need not be alarmed at the startling blackness of the first few strokes placed on the white board. They will take their true tonal relation as the rest of the sketch builds up. In fact, it is certain that he will be deceived as to their true value. A not uncommon experience is that, after working in what we thought to be strong tonal and textural contrasts, we find our final sketch to be of a dull, uniform gray, with no contrasts and no life, such as that in Fig. 17. Only experience can teach us to realize, as we place each line on the sketch, what its precise value in the finished drawing will be. It is safe to say that every line drawn in the first few stages of building up a drawing will appear many degrees grayer in the finished sketch. Experience alone will teach us how to allow for this change of value, and we shall find that the whole question of relative tonal values and of texture is based on this interplay of tonal relations. We should probably be right if we advised the young draughtsman to draw every line four times as thick as he originally intended to draw it.

On pages 32 and 156 two sketches are shown, the originals of which were freehand pen drawings on sheets of ordinary white blotting paper. While not recommending this medium for permanent use, as it is difficult to control, the experience of being forced at the outset of the drawing to introduce bold work would prove of great value to a student inclined towards "niggling;" it would tend to arrest the common fault of degenerating into feebleness of stroke and paucity of tone colour.

Style.—While we do not pretend to deal with the question of style as influencing the reader's choice, it is well to specify certain respects in which our immediate or ultimate aims may differ.

They will vary according to our artistic inclinations or to the style and mannerisms of the particular draughtsman or school we may take as our model, and, last but not least,

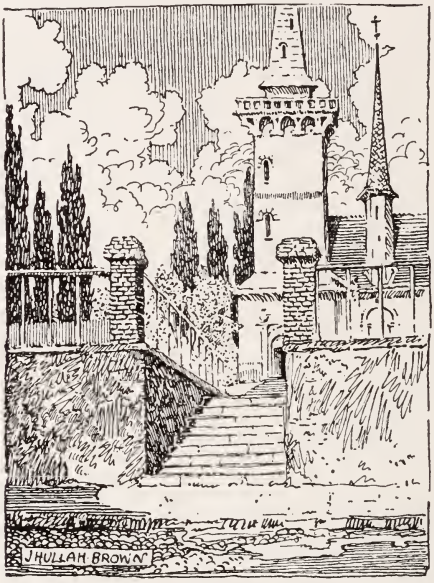


FIG. 22.

according to our original powers of perception and interpretation. We may anticipate here a question with which we deal later as to two fundamentally opposite aspects of pen-and-ink sketching. Stated briefly, the first aspect has a *white* board foundation, and on this white we place lines and tones corresponding to the tones of our subject; the second aspect has, as it were, a *black* foundation; and on this *whites* are placed (or in actual practice left) corresponding to the

whites and light tones of the subject. In the first instance, we centre our energies on covering the spaces which are dark (Fig. 9). In the second instance, we have for our fundamental aim the "framing" or leaving of whites, by blotting out everything which is not light (Fig. 21). In the first case we are often left in our sketch with a preponderance of meaningless white spaces; in the second case whites are only left with the specific purpose of their having a value as whites.

This second aspect will receive further development when we come to treat the subject of ambience; but while we are working from simpler subjects or from subjects not specially demanding the technique belonging to our three remaining branches of pen-and-ink drawing, the first aspect is the one which chiefly governs our methods of procedure. But even here our aims may still vary appreciably, and the principal cause of variation will arise from our desire either to portray the objects with minute exactitude, or merely to suggest them from an impressionist point of view. The great weakness of the first aspect is the preponderance of white spaces left on the final sketch. But even when working in this way we shall, as we proceed, aim at leaving as few as possible of those aimless whites which represent nothing but white paper, and which have no compositional or artistic part in the tonal scheme of the sketch.

With this ultimate object in view, we may with advantage aim at packing our drawing with detail, and the simplest style of pen and ink is that which sets out to portray minute detail. Adopting this style, the beginner will not only cultivate the habit of covering his space with tone colour, but he will very quickly find himself more or less successfully tackling elaborate subjects, and the scope of subject will only be limited by his skill in drawing and his patience and perseverance. This elaboration of detail is a style of pen and ink which is

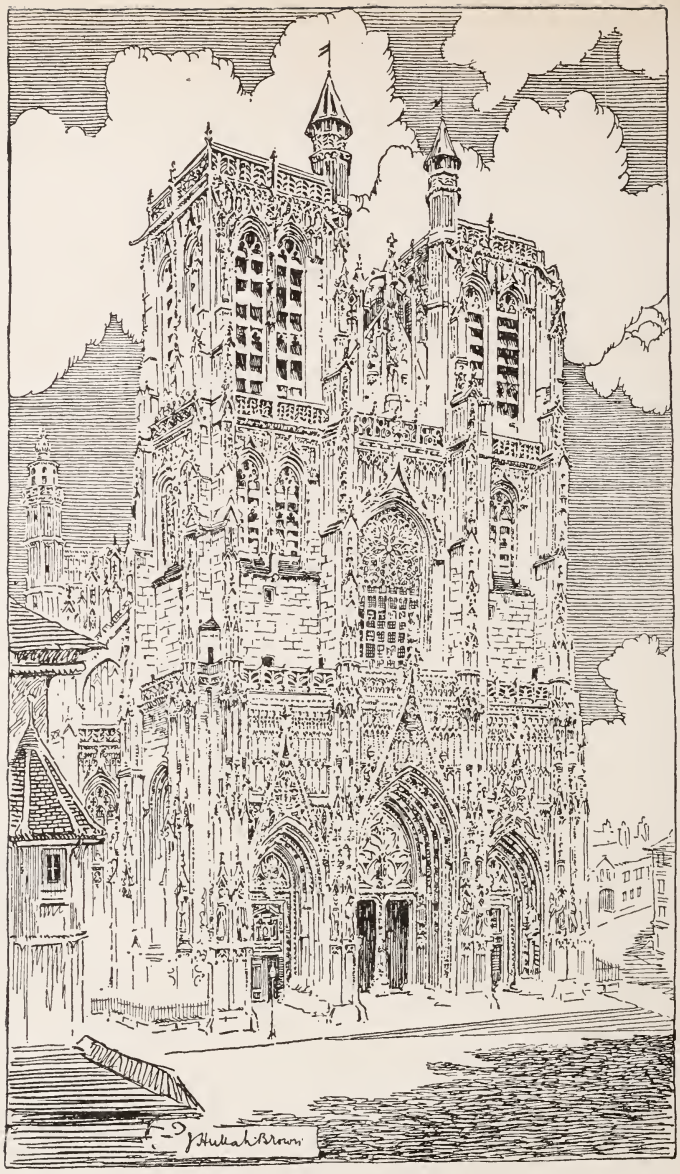


FIG. 23.—ABBEVILLE.

number of intermediate tones represented. Some sketches are drawn in two tones only—tone one (white), and tone hundred (black). Others may be drawn in three tones only —white, black, and one intermediate gray tone. Others may show not only the two extremes of tone, but a great number of intermediate tones as well.

Thus the compass within which we are working, and the number of intermediate tones which we wish to express will directly affect the amount of variation in tone which we make for different atmospheric planes. If we make a great or rapid contrast in tones of adjacent planes we soon come to the end of our resources of black and white. If we make a slight variation of tone, the subtlety of the technique becomes very fine. We may adopt either method according to the subject and our artistic perception, and in the first place obtain a strong, contrasty sketch full of vividness ; or we may obtain a delicate gray sketch bathed in hot sunlight or calm twilight. The method adopted will depend upon the subject, some subjects showing but a few distinct planes, while others will show an unlimited number, and demand the utmost resources of our blacks and whites and intermediate tones to interpret them. But the secret of the matter is this, that whatever degree of contrast we adopt for any one kind of object in any two given planes, the same ratio of contrast must be adopted for every object in every plane.

The great range of tone and the delicate gradations which may be obtained by it make the pencil an excellent medium for suggesting atmospheric effect. With the pen it is a more difficult matter. The principal technical means by which we are able to indicate atmospheric effect in pen drawing lies in variation of strength of line, whether the lines are drawn singly for purposes of drawing outline or of indicating shadow, or whether they are used for covering spaces to

FIG. 6.—A Five-plane Study.

produce the required tones. The question of the thickness of the lines and the distance apart must be carefully considered in representing similar things in different planes, and the contrast of tones will be got principally by the subtle possibilities of variation in strength of the individual lines, and variation in their distance apart. Thus if we represent an object in the foreground by thick lines well separated, we might represent a similar object in the distance by thinner lines drawn closer together.

Another means will be by the actual dimensions of *blacks* and *whites*. Not only must the blacks be bolder in the foreground, but the whites must also be whiter.

Thus in Fig. 1 the whites in plane one are whiter than the whites of plane two. This is only so by contrast; but we shall find that both black spaces and white spaces may, *by schemes of contrast*, be made to appear as of relative degrees of blackness and whiteness—a seeming contradiction in terms which we shall explain later on in the chapter on Ambience.

The method of procedure in suggesting aerial perspective, then, will be this: first decide upon the relative tones with which to suggest all objects in any one plane, say in the middle distance, or plane four of the tone chart. Then decide upon the amount of variation in tone which similar objects, or objects of similar tone, are to be given on two other planes, say in the full distance and in the strongest foreground; then persist in this scheme of expressing or representing aerial perspective throughout the sketch. It may lead us to depict the shadow of an arum lily in the foreground by a stronger tone than the tone used for a tarred fence in the distance; but even so we shall not be wrong—in fact, we shall be in error if we do otherwise.

So far we have viewed the subject in its application to landscape work. But these remarks apply none the less to

Fig. 7.—Robin Hood Bay.

all sketches or drawings where the details of the subject are in different vertical planes. The *fact* of aerial perspective exists just as much, though in a lesser degree, in a figure, a vase of flowers, a single chair, or an interior, as it does in open landscape. The advisability of interpreting or insisting upon representing the fact strictly in all cases is another matter. No drawing need be a slave to it, but the subtle charm of many a sketch is the outcome of its conformation, even down to minute details, to the technical requirements utilized in portraying or suggesting aerial perspective; while many drawings are unsatisfactory simply owing to the lack of observation or the failure to interpret atmospheric effect by some suitable means of technique.

There are still other points which must be considered as affecting the actual practice of thus representing aerial perspective. The theory will stand as a general working basis; but while Nature is ever true to it, we rarely choose a subject with the detail arranged in such a uniform manner. And while it will be quite safe to work on the lines indicated above, we are under no obligation slavishly to adhere to any theory or practice regardless of all other considerations. In actual practice our theory may be seemingly controverted by peculiar lighting, by cloud shadows, by movement, and by many other causes, some natural, others questions of expediency. It may even be noticed how a subject will change atmospherically day by day. Not the least important thing which will affect it in practice will be the question of "composition." Thus, in laying out a sketch it is sometimes desirable to give prominence to special features in it. In this case the special features which we desire to emphasize will be drawn in accordance with the practice as indicated above. But there are often other features which we desire to include in the sketch to help the "setting," but which we

do not consider as of equal importance; they form part of the sketch as a whole, but not part of the central feature or idea of the subject. In this case, the true or

Fig. 8.

relative value of their tones in the subject is not insisted upon in the sketch. They will take their place consistently with the right idea of "composition" or "compositional

FIG. 9

tonal values," but will seemingly controvert the theory of aerial perspective.

The problem of adapting the technique to suggest aerial perspective must always prove a fascinating one, and in an intricate sketch the relation of tone values will require delicate manipulation. But a sketch is never finished with until we are satisfied that nothing more can be done to it or until it is abandoned, and although errors in aerial perspective may be perpetrated as the drawing gradually builds up on the white sheet, the final touches may sometimes put matters right. A penknife on Bristol board or a scraping tool on scraper board will be found useful tools at this point, and any blacks, deep tones, or strong lines which have intruded themselves into the wrong atmospheric plane may be carefully picked out with a knife or scraped down, while added strength may be given to lines and tones (especially in the shadows) which are not deep enough for the plane in which they are placed. This method of pulling things out of the fire may be practised on previous sketches, as well as on the completion of each sketch ; always considering whether it is better to strengthen the tones or lines in the foreground, or to reduce the strength of lines or tones in the distance. A few strokes judiciously added or a few lines carefully reduced in strength or removed altogether may put things atmospherically right.

If, however, the desired atmospheric effect of the finished sketch is *preconceived*, and the fact of aerial perspective kept constantly in mind throughout the working, the touch of the hand will soon respond to the conception of the mind.

* * * * * * *

As a practical demonstration of the value of tones in atmospheric planes, let the student take a piece of black paper a quarter of an inch square, and place it on the sky of the sketch (Fig. 10). It will show jet black. Now move

FIG. 10.—An Exercise in Receding Tone Values.

it gradually down the sketch, and note its decrease in prominence or importance as it descends. On reaching the immediate foreground it will have found its proper tone plane, and will not be conspicuous or out of place. A similar experiment may be carried out with other examples.

The writer had his attention most forcibly called to this fact when drawing a sketch some years ago. A common fly settled on the drawing on a distant church tower, where it appeared as a jet black mass, and after crawling about the sketch it finally settled on the black of a foreground barge and was lost to sight. It had found its true atmospheric plane.

Our illustrations show the application of this principle in landscape work ; they include studies in which the atmospheric planes are distinct, and others in which they gradually merge one into the other.

" Caudebec " and " Evreux " (Figs. 2 and 3) are two-plane studies. In the former the open black-and-white work of the foreground cottage throws the gray mass of the church into a more distant plane. Remove this cottage and the church is a study in black and white, but in contrast to the open work of the foreground it appears as a gray, more distant mass.

In " Evreux " (Fig. 3) the deep tones of the foreground foliage answer the same purpose as the whites on the previous example, and the same test as to the black-and-white treatment of the church may be applied.

In the sketch of " Bruges " (Fig. 4) the tone scheme is inverted, the character of the foreground demanding a light-toned and not a deep-toned treatment.

" Lincoln Cathedral " (Fig. 5) shows a three-plane study, or, including the immediate foreground, a four-plane study.

The fir trees (Fig. 6) shows a five-plane study in which the five planes are emphasized and separated.

FIG. 11.—FAKENHAM.

"Robin Hood Bay" (Fig. 7) shows four well-defined planes or divisions—the foreground cliff, the village, the cliff beyond, and the sky; but each broadly-marked plane still further represents a study in atmospheric perspective by itself, and while each of the main divisions into which the landscape may be divided is treated tonally in atmospheric relation to the others, each main division may still further be subdivided, and be considered as a complete study on its own.

The planes are not always kept distinct, as in the last examples. Fig. 8 shows a study in which the detail along the country lane vanishes gradually in tone value, although the shadows in the middle distance demand deeper tones for their treatment than are to be found in the immediate foreground. Also in this instance the gray tones of the distance are "framed" or emphasized by the deep tones of the shadows in the middle distance—a manner of treatment which often enhances the effect of atmospheric perspective.

In the four figures, 9, 10, 11, and 12, the planes gradually merge one into the other. Especially in Figs. 9 and 10, where the white posts, the chimneys, the roofs, and other details become of a grayer tone as they vanish into the distance.

Simpler studies than these may suffice for the worker's first attempts at this piece of technique. In fact, the preliminary study should be in drawing aerial perspective charts such as that shown on page 168. In such charts the number of planes may be increased up to ten or twelve.

In actual practice the principal warning which is needed is against feebleness of linework in the grayer tones; the individual line should still be black, especially if the drawing is intended for reproduction. The student should aim at producing his effect in the original, so that it will reproduce satisfactorily without calling in the aid of the engraver to "dot" or "gray off" the distant tones. This and other such

FIG. 12.

mechanical devices should not be resorted to until the draughtsman has exhausted to the best of his ability the resources of his medium ; while to resort to, or rely upon, any mechanical devices habitually should be considered as acknowledging defeat in control of the medium.

For this purpose it is better to fix a limit to the fineness of the work or the grayness of the tone beyond which we must never trespass.

There is no definite rule that the gray tones should be placed on the sketch first ; but by adopting such a procedure there will be less likelihood of being driven to feebleness of workmanship in the lightest tones. With experience and practice the sketch may be commenced with detail at either end of the tone scale ; but to commence on the lighter tones is the safest method un il a high degree of control of strength of line is acquired.

There are several useful little practices which may help to safeguard against feeble work in the lighter tones.

The student may find it helpful to adopt the plan of placing his two extreme tones on to the sketch at the commencement of the penwork. By placing on patches of his lightest gray and his deepest tone he will be able to represent intermediate tones more readily. Another practice which is sometimes helpful is that of placing six squares representing six grades of tone on the margin of his Bristol board. These should range in tone from white to black, and should be adjusted in size to suit the boldness or fineness of the style of linework of the sketch.

The reader might make for himself an *aerial perspective tone chart*, such as that shown in Fig. 1, using the first two columns only, and keep it in sight while working. With this method it is possible to refer every tone in the subject to the corresponding *relative* tone on the tone chart; and, having

FIG. 13.—An Exercise in Aerial Perspective.

number of intermediate tones represented. Some sketches are drawn in two tones only—tone one (white), and tone hundred (black). Others may be drawn in three tones only —white, black, and one intermediate gray tone. Others may show not only the two extremes of tone, but a great number of intermediate tones as well.

Thus the compass within which we are working, and the number of intermediate tones which we wish to express will directly affect the amount of variation in tone which we make for different atmospheric planes. If we make a great or rapid contrast in tones of adjacent planes we soon come to the end of our resources of black and white. If we make a slight variation of tone, the subtlety of the technique becomes very fine. We may adopt either method according to the subject and our artistic perception, and in the first place obtain a strong, contrasty sketch full of vividness; or we may obtain a delicate gray sketch bathed in hot sunlight or calm twilight. The method adopted will depend upon the subject, some subjects showing but a few distinct planes, while others will show an unlimited number, and demand the utmost resources of our blacks and whites and intermediate tones to interpret them. But the secret of the matter is this, that whatever degree of contrast we adopt for any one kind of object in any two given planes, the same ratio of contrast must be adopted for every object in every plane.

The great range of tone and the delicate gradations which may be obtained by it make the pencil an excellent medium for suggesting atmospheric effect. With the pen it is a more difficult matter. The principal technical means by which we are able to indicate atmospheric effect in pen drawing lies in variation of strength of line, whether the lines are drawn singly for purposes of drawing outline or of indicating shadow, or whether they are used for covering spaces to

FIG. 6.—A Five-plane Study.

produce the required tones. The question of the thickness of the lines and the distance apart must be carefully considered in representing similar things in different planes, and the contrast of tones will be got principally by the subtle possibilities of variation in strength of the individual lines, and variation in their distance apart. Thus if we represent an object in the foreground by thick lines well separated, we might represent a similar object in the distance by thinner lines drawn closer together.

Another means will be by the actual dimensions of *blacks* and *whites*. Not only must the blacks be bolder in the foreground, but the whites must also be whiter.

Thus in Fig. 1 the whites in plane one are whiter than the whites of plane two. This is only so by contrast; but we shall find that both black spaces and white spaces may, *by schemes of contrast*, be made to appear as of relative degrees of blackness and whiteness—a seeming contradiction in terms which we shall explain later on in the chapter on Ambience.

The method of procedure in suggesting aerial perspective, then, will be this: first decide upon the relative tones with which to suggest all objects in any one plane, say in the middle distance, or plane four of the tone chart. Then decide upon the amount of variation in tone which similar objects, or objects of similar tone, are to be given on two other planes, say in the full distance and in the strongest foreground; then persist in this scheme of expressing or representing aerial perspective throughout the sketch. It may lead us to depict the shadow of an arum lily in the foreground by a stronger tone than the tone used for a tarred fence in the distance; but even so we shall not be wrong—in fact, we shall be in error if we do otherwise.

So far we have viewed the subject in its application to landscape work. But these remarks apply none the less to

FIG. 7.—ROBIN HOOD BAY.

all sketches or drawings where the details of the subject are in different vertical planes. The *fact* of aerial perspective exists just as much, though in a lesser degree, in a figure, a vase of flowers, a single chair, or an interior, as it does in open landscape. The advisability of interpreting or insisting upon representing the fact strictly in all cases is another matter. No drawing need be a slave to it, but the subtle charm of many a sketch is the outcome of its conformation, even down to minute details, to the technical requirements utilized in portraying or suggesting aerial perspective; while many drawings are unsatisfactory simply owing to the lack of observation or the failure to interpret atmospheric effect by some suitable means of technique.

There are still other points which must be considered as affecting the actual practice of thus representing aerial perspective. The theory will stand as a general working basis; but while Nature is ever true to it, we rarely choose a subject with the detail arranged in such a uniform manner. And while it will be quite safe to work on the lines indicated above, we are under no obligation slavishly to adhere to any theory or practice regardless of all other considerations. In actual practice our theory may be seemingly controverted by peculiar lighting, by cloud shadows, by movement, and by many other causes, some natural, others questions of expediency. It may even be noticed how a subject will change atmospherically day by day. Not the least important thing which will affect it in practice will be the question of "composition." Thus, in laying out a sketch it is sometimes desirable to give prominence to special features in it. In this case the special features which we desire to emphasize will be drawn in accordance with the practice as indicated above. But there are often other features which we desire to include in the sketch to help the "setting," but which we

do not consider as of equal importance; they form part of the sketch as a whole, but not part of the central feature or idea of the subject. In this case, the true or

Fig. 8.

relative value of their tones in the subject is not insisted upon in the sketch. They will take their place consistently with the right idea of "composition" or "compositional

FIG. 9

tonal values," but will seemingly controvert the theory of aerial perspective.

The problem of adapting the technique to suggest aerial perspective must always prove a fascinating one, and in an intricate sketch the relation of tone values will require delicate manipulation. But a sketch is never finished with until we are satisfied that nothing more can be done to it or until it is abandoned, and although errors in aerial perspective may be perpetrated as the drawing gradually builds up on the white sheet, the final touches may sometimes put matters right. A penknife on Bristol board or a scraping tool on scraper board will be found useful tools at this point, and any blacks, deep tones, or strong lines which have intruded themselves into the wrong atmospheric plane may be carefully picked out with a knife or scraped down, while added strength may be given to lines and tones (especially in the shadows) which are not deep enough for the plane in which they are placed. This method of pulling things out of the fire may be practised on previous sketches, as well as on the completion of each sketch ; always considering whether it is better to strengthen the tones or lines in the foreground, or to reduce the strength of lines or tones in the distance. A few strokes judiciously added or a few lines carefully reduced in strength or removed altogether may put things atmospherically right.

If, however, the desired atmospheric effect of the finished sketch is *preconceived*, and the fact of aerial perspective kept constantly in mind throughout the working, the touch of the hand will soon respond to the conception of the mind.

* * * * * * *

As a practical demonstration of the value of tones in atmospheric planes, let the student take a piece of black paper a quarter of an inch square, and place it on the sky of the sketch (Fig. 10). It will show jet black. Now move

FIG. 10.—An Exercise in Receding Tone Values.

it gradually down the sketch, and note its decrease in prominence or importance as it descends. On reaching the immediate foreground it will have found its proper tone plane, and will not be conspicuous or out of place. A similar experiment may be carried out with other examples.

The writer had his attention most forcibly called to this fact when drawing a sketch some years ago. A common fly settled on the drawing on a distant church tower, where it appeared as a jet black mass, and after crawling about the sketch it finally settled on the black of a foreground barge and was lost to sight. It had found its true atmospheric plane.

Our illustrations show the application of this principle in landscape work; they include studies in which the atmospheric planes are distinct, and others in which they gradually merge one into the other.

"Caudebec" and "Evreux" (Figs. 2 and 3) are two-plane studies. In the former the open black-and-white work of the foreground cottage throws the gray mass of the church into a more distant plane. Remove this cottage and the church is a study in black and white, but in contrast to the open work of the foreground it appears as a gray, more distant mass.

In "Evreux" (Fig. 3) the deep tones of the foreground foliage answer the same purpose as the whites on the previous example, and the same test as to the black-and-white treatment of the church may be applied.

In the sketch of "Bruges" (Fig. 4) the tone scheme is inverted, the character of the foreground demanding a light-toned and not a deep-toned treatment.

"Lincoln Cathedral" (Fig. 5) shows a three-plane study, or, including the immediate foreground, a four-plane study.

The fir trees (Fig. 6) shows a five-plane study in which the five planes are emphasized and separated.

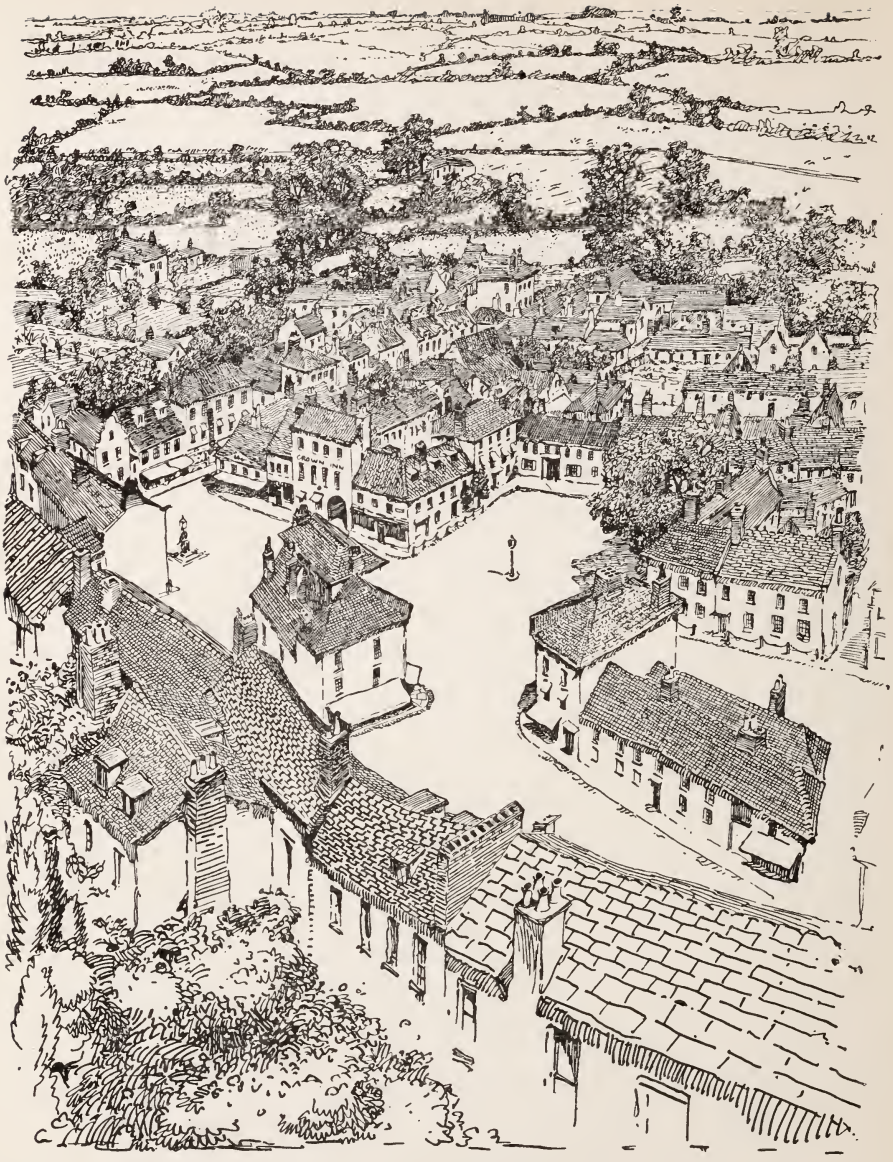


FIG. 11.—FAKENHAM.

"Robin Hood Bay" (Fig. 7) shows four well-defined planes or divisions—the foreground cliff, the village, the cliff beyond, and the sky; but each broadly-marked plane still further represents a study in atmospheric perspective by itself, and while each of the main divisions into which the landscape may be divided is treated tonally in atmospheric relation to the others, each main division may still further be subdivided, and be considered as a complete study on its own.

The planes are not always kept distinct, as in the last examples. Fig. 8 shows a study in which the detail along the country lane vanishes gradually in tone value, although the shadows in the middle distance demand deeper tones for their treatment than are to be found in the immediate foreground. Also in this instance the gray tones of the distance are "framed" or emphasized by the deep tones of the shadows in the middle distance—a manner of treatment which often enhances the effect of atmospheric perspective.

In the four figures, 9, 10, 11, and 12, the planes gradually merge one into the other. Especially in Figs. 9 and 10, where the white posts, the chimneys, the roofs, and other details become of a grayer tone as they vanish into the distance.

Simpler studies than these may suffice for the worker's first attempts at this piece of technique. In fact, the preliminary study should be in drawing aerial perspective charts such as that shown on page 168. In such charts the number of planes may be increased up to ten or twelve.

In actual practice the principal warning which is needed is against feebleness of linework in the grayer tones; the individual line should still be black, especially if the drawing is intended for reproduction. The student should aim at producing his effect in the original, so that it will reproduce satisfactorily without calling in the aid of the engraver to "dot" or "gray off" the distant tones. This and other such

FIG. 12.

mechanical devices should not be resorted to until the draughtsman has exhausted to the best of his ability the resources of his medium ; while to resort to, or rely upon, any mechanical devices habitually should be considered as acknowledging defeat in control of the medium.

For this purpose it is better to fix a limit to the fineness of the work or the grayness of the tone beyond which we must never trespass.

There is no definite rule that the gray tones should be placed on the sketch first ; but by adopting such a procedure there will be less likelihood of being driven to feebleness of workmanship in the lightest tones. With experience and practice the sketch may be commenced with detail at either end of the tone scale ; but to commence on the lighter tones is the safest method un il a high degree of control of strength of line is acquired.

There are several useful little practices which may help to safeguard against feeble work in the lighter tones.

The student may find it helpful to adopt the plan of placing his two extreme tones on to the sketch at the commencement of the penwork. By placing on patches of his lightest gray and his deepest tone he will be able to represent intermediate tones more readily. Another practice which is sometimes helpful is that of placing six squares representing six grades of tone on the margin of his Bristol board. These should range in tone from white to black, and should be adjusted in size to suit the boldness or fineness of the style of linework of the sketch.

The reader might make for himself an *aerial perspective tone chart*, such as that shown in Fig. 1, using the first two columns only, and keep it in sight while working. With this method it is possible to refer every tone in the subject to the corresponding *relative* tone on the tone chart; and, having

FIG. 13.—An Exercise in Aerial Perspective.

FIG. 14.—A Study in Distant Sunlit Gray.

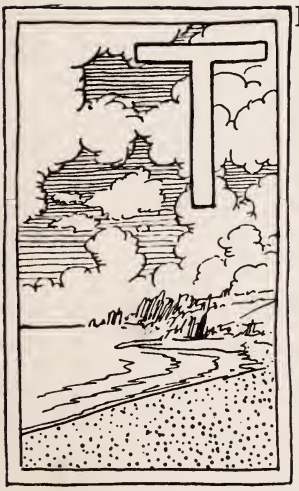
fixed our extremes, we can say, "this tone is lighter than that," or "this tone lies between those two other tones." The chart will not be a guide as to the *texture* of the tone, but it will be a valuable help in translating the tone values in Nature into relative tones as expressed in terms of pen and ink.

The number of planes indicated in the tone chart may be increased up to ten or twelve, or even more; or they may be reduced to three or four; or they may be changed in size and shape, being arranged in a single column on a narrow slip of paper suitable for placing up the side of the sketch. Any of these schemes will be of value in compressing the vast range of tones in Nature within the limits of our blackest black and our whitest white.

The student should carry out original research in drawings of all kinds of subjects, and in pencil, charcoal, or colour sketches. He will find many drawings, especially in pen and ink, which, sad to say, make no pretensions at all to interpret atmospheric perspective. He will find others which owe their principal charm to the fact that they faithfully represent this atmospheric aspect of the subject. He will find some drawings ruined by a misapplication or over-emphasis of the effect, having some clumsy, ugly, black object thrust in regardless of all consideration except that of getting something black in the foreground plane. When, however, the effect of atmospheric perspective is adequately represented it is one of the most beautiful effects in pen-and-ink drawing.

CHAPTER XI.

SKY TECHNIQUE.



THE technique of sky portrayal presents similar problems to those we have just studied in the technique of aerial perspective. In both branches of the technique we aim at producing the effect of atmospheric perspective, and in each we find that relative tonal values are of vital importance.

The principal distinction between the two is, that in suggesting aerial perspective we are concerned with placing tangible objects of varying tones in their true atmospheric plane, whereas in the study of a sky we are dealing with the atmospheric effect of something which has no tangibility in itself, but which has decided shape and a great variation in tone.

If we attempt to carry our treatment of aerial perspective on beyond the limits of our landscape into the regions of our skies, we shall find ourselves faced by a very intricate and well-nigh impossible task.

We will first consider the treatment of skies as a subject by itself, and then see what effect skies will have upon the

rest of the sketch, and how they will influence the tone and technique of the landscape. We shall find that each must be manipulated with due regard to the needs or dictates of the other. Considering the technical difficulties of cloud portrayal, we will confine ourselves to very simple methods of suggesting them, aiming rather at creating or developing a feeling for cloud effect, the technique of which the worker must continue to grapple with long after he has passed the scope of this short treatise.

One of the difficulties which face us at the outset is the fact that in pen and ink we have, strictly speaking, nothing whiter than our sheet of Bristol board ; and any mark which we place on the sketch tends to make it a deeper tone. If, therefore, in our landscape we take our white board as representing the tone of, let us say, a whitewashed wall bathed in sunshine, we realize at once that we have no relative tone available for representing the " light " of the sky.

At first it may appear as if we must *kill*—that is, destroy the prominent whiteness of—every white in the landscape in order to get any pretensions at all to correct relative tone value. This, though readily achieved with the pencil or brush, would be so serious a restriction in pen and ink that it would rob the medium of many of its most beautiful effects. Pen and ink, though a tonal medium, is nevertheless linework ; and each line being essentially black, it does not and cannot compete on its own ground with a medium capable of a *flat* wash. But while by its own characteristic idioms it is capable of portraying a complete landscape and sky, it cannot be accepted as a general practice that all the whites in the landscape should be deadened in aiming at a true tonal contrast between landscape and sky.

The fact is that we have exhausted our range of tones from black to white in our landscape. This is our real trouble

in depicting relations when combining landscapes and skies. In pen and ink the contrast will often of necessity be false. We can depict whiteness, and to a certain extent we can suggest light, but not to the degree by which we can give

the true relative value between " white " in the landscape and " light " in the sky.

In treating landscape and sky some draughtsmen adopt the method of having two atmospheric tone schemes—one carried out faithfully in the landscape, or in depicting tan-

gible things, the other for suggesting clouds and cloud perspective. Others ignore the fact of atmospheric perspective as influencing strength of line, and leave the different parts of the sketch to speak for themselves.

If we make a serious attempt to indicate relative tone values as between "earth and sky," we might be tempted to suggest as a solution of the problem that we make a practice that no line or tone in the sky work should be as strong as any line or tone in the landscape. This would be a valuable training; but it is obviously not a satisfactory solution, seeing that it deals only with the question of the deeper tones. Logically, it drives us to formulate a compensating theory that we should have no light in our landscape as light in tone as the deepest tone in the sky. It is not a feasible solution for general practice, although some very beautiful examples of work exist carried out on this principle. One very notable example can be seen in "A Pastoral," by F. L. B. Griggs.

We must study other ways and means to guide us to a working solution in subjects which do not lend themselves to this true relative tonal treatment. Fortunately there is one great factor which gives us the clue. That factor may be summed up in the one word "grit."

When compared to the sky tone, the textures of all parts of the landscape have a certain "grit" which the sky never has. This is the point from where we can strike out. The question is one of quality of tone, of tangibility and intangibility. And we shall find that a considerable degree of false *tonal* relationship will not have a displeasing effect, provided that the *textural* relationship is true. The *quantity* of tone in the sky may be piled up so long as the *quality* of tone is distinctive; and provided that the quality is right, a considerable degree of falseness of tonal relationship may exist, and yet not destroy the effect of aerial perspective.

Coming to the actual technique of cloud portrayal, we find that there are a few simple methods of sky treatment which are so frequently and widely used that they have become almost a formula. So much is this so that, in spite of the great diversity of styles and manner of treating the rest of the sketch, we notice that a great many landscape draughtsmen, unless they are aiming at some special sky effect, adopt as a general rule one or other of these simple formulæ, frequently adding some exquisite touches of individuality, but conforming to a generally accepted usage.

The treatment might be described as the *Three-Tone Scheme*, and although it savours very much of the *conventional*, and in many cases of the purely *decorative*, it allows of very great and free development, and in the hands of expert draughtsmen has resulted in some of the most charming sky effects to be found in pen and ink.

In the three-tone scheme we have, first, *Blue Sky Tone*, and the means of suggesting this is by straight, horizontal, parallel lines, such as those shown in Fig. 1. Such lines are the generally—though, of course, not the universally—accepted means of translating the blue of the sky into terms of pen and ink. When the lines are drawn as in Fig. 4 they represent cloud shadows rather than blue sky.

Secondly, the *White Cloud Tone*. White clouds of any well-defined shape may be drawn in outline—not because they have an outline, but because we wish to enclose a white space the shape of the cloud (Fig. 2).

Thirdly, *Gray Cloud Tone* (Fig. 3). In this the tone of the mass or body of the cloud is indicated by covering the cloud space itself by some tone other than white.

These three tones—the blue tone, the white tone, and the gray tone—supply the tonal material for many and varied schemes of sky treatment.

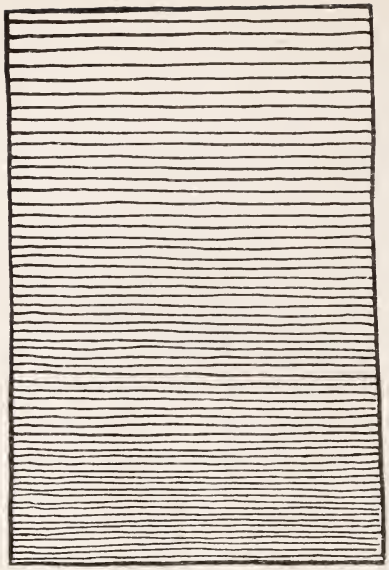


FIG. 1.

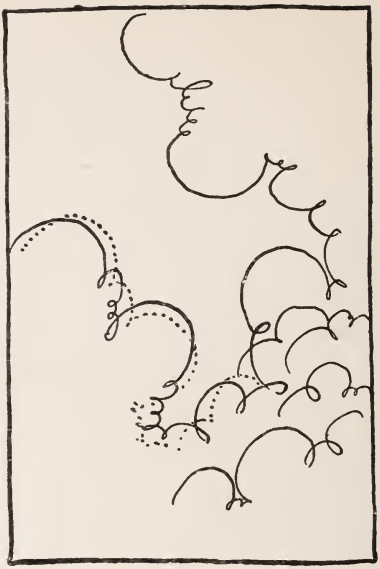


FIG. 2.

FIG. 3.

FIG. 4.

We may find only one of these tones used on a sketch, or we may find any two of them, or all three of them combined. The possible combinations and variations of these three tones, and their conventional or free treatment, are unlimited.

In their simpler applications they will form an excellent basis for the young draughtsman's sky technique; but although they are capable of being highly developed and elaborated, and of producing exquisite results, they will need to be supplemented by other methods of treatment—some of which we deal with later—otherwise our sky treatment may degenerate into a mere formal mannerism.

The Blue Sky Tone.—With regard to blue sky formula, our illustration shows but a slight variation in tone value or in strength of line, but the treatment is capable of great range in either respect, so that we may have gradations of tone and tone quality ranging from a delicate pale "blue" up to a deep vivid "purple."

As representing, on a sketch, the tone of blue sky, it can rarely be claimed that it gives the true relative tone value of a blue sky as compared to that of the landscape. If we commenced a sketch by covering the sky space with this tone, and made a serious attempt to build up the tones of the landscape in true or even approximate relation to it, we should find that it would drive us to obliterating most of the light and sunshine out of our sketch. It is rarely that the actual blue tone of the sky is darker in relative tone value than any part of the landscape, with the possible exception of water; and as the scale of relative tones in Nature is so vast, and in pen and ink so limited in comparison, we have perforce sometimes to accept this false relation. The blue sky tone, unless it is very delicate, and used in conjunction with a full-toned landscape, approximates more nearly to the true relative value of a deep-toned flat cloud. It would quite

FIG. 5.—Showing Relation between Leaden Sky and Snow.

adequately represent the contrasted effect of a leaden sky and a snow-white landscape, as in Fig. 5.

In this illustration the relation of tone between the leaden sky and the white snow is fairly true to Nature. But the sky tone here represents a leaden cloud, and not a blue sky; and this serves to emphasize the technical difficulty of obtaining a true relation of tone between landscape and blue sky. But, while admitting the frequent and unavoidable falseness of relation, it may fairly be claimed that a considerable degree of light and brightness may be imparted into and suggested by this particular method of portraying the blue tone of the sky.

While still retaining the horizontal direction of line, and reserving the treatment for blue sky spaces, the lines may vary (1) in thickness, (2) in their distance apart, (3) in gradations of thicknesses, (4) in contrasted distances apart.

The lines may also vary in character or in quality, each separate line being (1) perfectly straight and of a uniform thickness throughout its length, (2) of a uniform thickness, but not straight, (3) neither straight nor of a uniform thickness.

Other variations may be obtained by drawing alternate thick and thin lines; by breaking each line up into shorter lengths; by drawing the lines very rapidly, or very slowly, giving them a waving appearance; or even by ruling them with a ruling pen. The particular kind of line or combination of lines will be governed by the effect it is required to produce, and by their contrast to other similar linework in the sketch.

The actual gradation of depths of blue in the sky (which must be shown by a corresponding gradation of tone on the sketch) generally shows the greatest depth of colour overhead, and a gradual, almost imperceptible, lightening of the tone as we approach the horizon. There are several means

FIG. 6.—A Confusion of Tones between Sky and Landscape.

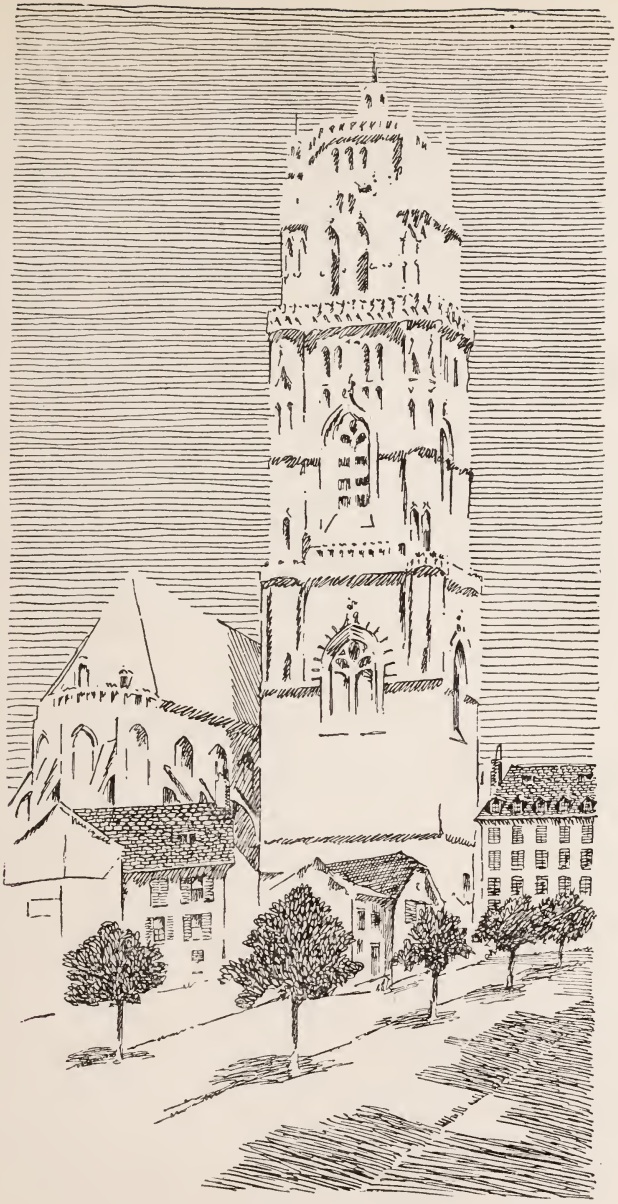


FIG. 7.—White against Blue.

by which this gradation may be shown. It is not merely sufficient to draw the lines closer together as we descend. As a matter of fact, by so doing we shall obtain a deeper and not a higher tone. So that, if our lines are of equal strength, we must draw them farther apart as we approach the horizon if we desire to produce a lighter tone. Nevertheless, the general practice is to draw the lines closer together as they approach the horizon. The reason for this lies in the fact that there is a feeling of "perspective" suggested by the ever-diminishing distance between the lines; and, other things

Fig. 8.

being equal, it is the safest practice. But if we wish, while drawing the lines closer and closer together, to show a gradation of tone as well, the effect must be got by a simultaneous gradation of strength of line, using thick lines when they are more distant, and gradually decreasing the strength as they are drawn closer together. By properly adjusting the strength of line and the distance between the lines, the necessary or desired effect of gradation of tone may be readily produced.

A plain blue sky tone has been introduced into the sketch (Fig. 6), with the desire to give the tower the tone of whitish-gray stone. The treatment would have been satisfactory had

the sky tone not conflicted with other similar tones in the landscape. In Fig. 7 there is no such conflict, but the relation of tone between the sky and the tower is false. Nevertheless, this device of showing a white building against a "blue" background is often used with exquisite effect; and

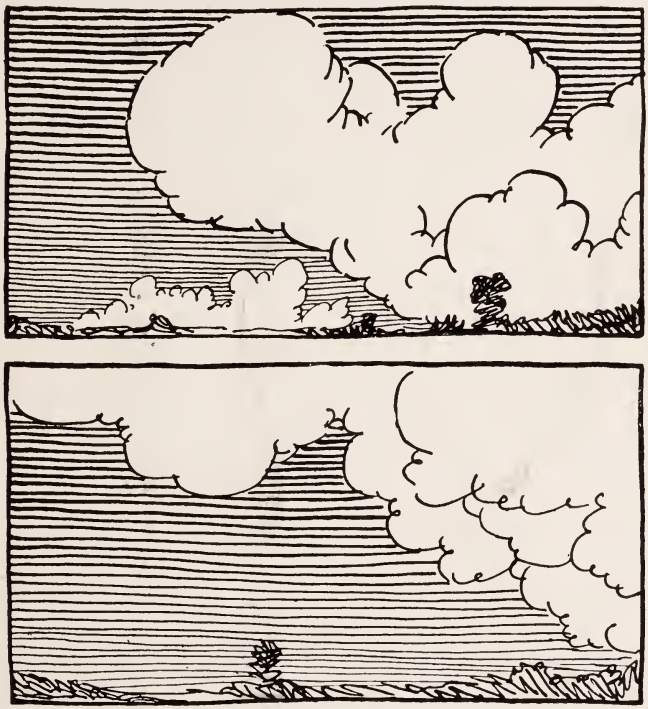


Fig. 9.

it has come to be considered as a legitimate device in pen-and-ink technique, especially in view of the fact that such a relation of tone is sometimes *perfectly correct.* In this particular device we see an example of *textural quality* taking precedence over "*tonal values.*"

The White Cloud Tone.—While this white cloud effect is usually combined and contrasted with some other tone, it is not infrequently introduced by itself. The outlining is undoubtedly contrary to the best traditions of pen-and-ink

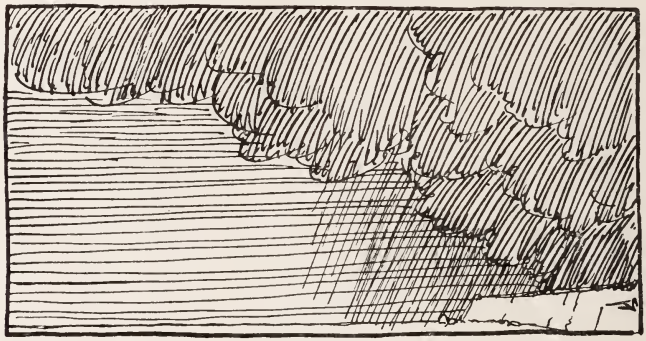


Fig. 10.

Fig. 11.

drawing; but in this particular application outlining has come to be accepted as legitimate. It is curious that circumstances have driven us to accept the use of outline in portraying just that part of Nature where an outline is most decidedly non-existent. But we have no other means of "framing"

FIG. 12.—The use of Vertical Lines for Blue Sky Tone.

the white mass of cloud unless we invariably, and on principle, obtain the effect of shape and whiteness by indicating and contrasting it with other tone values. Some draughts-

men do this from an artistic repulsion at the idea of outlining a cloud, and this attitude of mind demands considerable respect. But although cloud outlining may at first appear to be a blot on the pen-and-ink medium, it has not come to be so generally accepted and used without some claim other than that of mere necessity. It must be borne in mind that skies are rarely the central idea of a sketch; they are part of the "setting," and a very important part of the atmospheric setting. And as to the actual outline, we claim that in one sense there is no outline; for when the eye is focussed, or attracted towards the "*compositional centre*" of the sketch, the *linework* and the *outline* of the clouds lose their individuality as lines, and become merged or blended into the general tonal scheme. In purely conventional or decorative work they may not do so, but in landscape drawing they should.

Fig. 13.

One important and far-reaching consideration which should dispel any feeling of repulsion at cloud outlining is the fact that the enclosed white space receives a tone quality itself, and lends an added quality to the rest of the sky, and more especially to the rest of the landscape, which they do not possess apart from this contrast. These effects are such a virtue in a drawing that we may consider the use of cloud outline as fully justified.

Moreover, we must always grant the artist his point of

view. We may examine his technique with the aid of a magnifying glass, but we must in common fairness view pen-and-ink drawing, as we view colour work, from the impressionist

Fig. 14.

Fig. 15.

point of view, looking at a pen sketch from such a distance, or with the eyes so adjusted, that we lose the linework and appreciate the *tonal* scheme.

Fig. 16.

Not all shaped clouds can be represented by this simple outline with equal facility or faithfulness; only when the

cloud is sharply defined in contrast to the blue sky should this method be resorted to.

In conjunction with the outline may sometimes be seen dotted " lines." These dotted lines serve to soften the severity of the bare outline, and give the cloud a more fleecy appearance. They also suggest movement. The latter is possibly the reason why the dotted lines are frequently made to follow closely on the course of the direct line. Again, this treatment, which may at first appear as but a feeble and artificial contrivance, must be viewed as aiding the atmospheric effect of the sketch as a whole.

The scheme of cloud portrayal may be varied by actually dotting, instead of drawing the outlines; also by having the lines dotted, partly or wholly, by the engraver; and still more by drawing the shape of the cloud, enclosing its whiteness, not in outline, but by a series of short horizontal lines following the margin, and slightly shading the edges of the cloud.

Another, and possibly the best, method of breaking the severity of the outline is to break it up into cloud " folds," an example of which is shown in the four-toned sky study (Fig. 21), and in Fig. 13.

The student should not use this outline treatment without great care. It is not sufficient merely to make a few curves at random. It is surprising how readily the lines may be made accidentally to depict or suggest loaves of bread, flying crocodiles, and other weird, fantastic shapes. Certainly the lines should be drawn rapidly, but the shapes of the clouds should have received careful study before the effect is attempted. As regards placing the clouds on the sketch, sometimes they will group themselves round the subject and form, *in situ*, a graceful part of the composition; but as it is quite legitimate to *borrow* clouds from other parts of the sky, the student should have a number of studies of

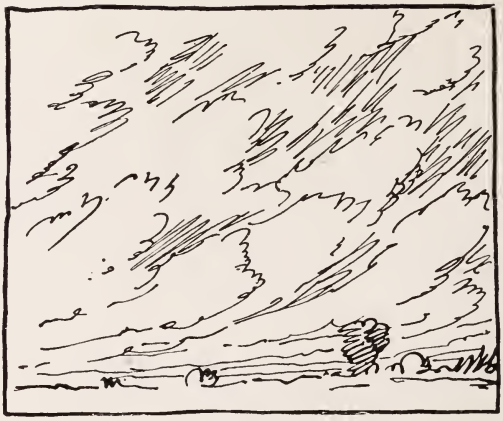


Fig. 17.

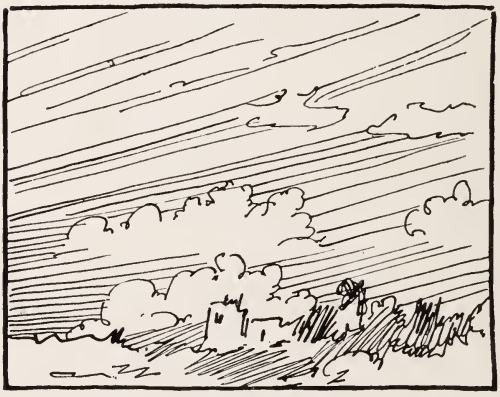


Fig. 18.

clouds suitable for representing in outline. He can then introduce them at discretion, and adapt them to the requirements of the composition of the sketch.

Toned Clouds.—The third tone, representing deeper toned clouds, is possibly the most difficult of the three tones to manage.

The system of linework may or may not be determined

FIG. 19.

FIG. 20.

for us or even suggested. When this method of depicting the cloud tone is used in combination with our "blue sky" linework, it is very rare to find a horizontal direction used for both the blue sky and the shaded cloud; nevertheless it may be and is used. As to the direction of line, there is no hard-and-fast rule. I have observed many cases, and found ex-

amples of the use of every conceivable direction. There may or may not be a guide. Supposing there is absolutely no natural suggestion of direction of line in the cloud itself, we may adopt some direction which may aid the composition or swing of the sketch, or we may avoid or destroy any definite feeling of direction. If there is a suggested direction, it may be either that of long, straight, sweeping lines, or of rolling clouds unfolding themselves in partially overlapping folds.

Fig. 21.—A Four-toned Sky Study.

As a rule, the lines used will more often be curved than straight, short than long; the curves will frequently follow the modelling or the unfolding of the cloud, following on similar principles to those we saw governing the direction of line in shading the cylinder. The tone is generally graded to emphasize the modelling; the lines may vary in thickness and in distance apart in the same way as those mentioned previously for producing blue sky tone. The principal aim should be to get

the right "vapoury" texture, or that feeling of solidity which is often so pronounced a characteristic of deep-toned clouds.

These three sky tones are more often found contrasted than used separately. In Figs. 8 and 9, tones i. and ii. are contrasted: in the first, with a "gray" effect; in the second, with a more black-and-white effect, due to the increased boldness of the linework; and in the third with delicate gradation of the blue sky tone.

In Fig. 10, tones i. and iii. are contrasted; in Fig. 11, tones ii. and iii.; in Figs. 14 and 15, tones i., ii., and iii. are employed. In Fig. 16 we represent still further cloud work; but although the technical means employed differ in some respects from those previously utilized, the underlying idea of the three contrasted tones forms the basis on which they are developed. Figs. 17, 18, 19, 20 show other devices frequently utilized in conjunction with suitable landscapes.

Fig. 21 shows an example of four-tone sky work. It is a fairly accurate tonal study from Nature of a storm cloud coming up against the wind. Fig. 22 is also a tonal sky study of a November sunrise, while Fig. 23 is another tonal study.

The difficulty of making such studies as those which illustrate this chapter is that the effects are often very fleeting; nevertheless, they should be attempted out of doors, direct from Nature, and, if possible, freehand with the pen. If the pen work is too slow and laborious to allow the student to catch the subject before it has vanished, very rapid tonal studies may be made in pencil or charcoal, which can afterwards be translated into terms of linework with the pen.

* * * * * * *

When we come to combine landscape and sky, we find many difficulties of technique, especially those in regard to aerial perspective, considerably lessened. The fact already mentioned of the significant addition in tone quality which a

FIG. 22.—A Rapid Relative Tonal Sketch.

sketch receives with the suggestion of a sky, smooths over many theoretical stumbling-blocks, which otherwise would have greatly handicapped us.

As an example of the effect of a simple sky treatment (in this case a two-toned sky), we give two prints from the same original (Figs. 24 and 25), the first without and the second with the sky. The original sketch was drawn with the intention of adding the simple sky after the first print was made. There is an intentional absence of atmospheric perspective; the drawing is "grittier," the lines are "harder," than would have been the case had there been no intention of adding the sky. It may fairly be claimed that the sky treatment, simple or even conventional as it is, has imparted a quality of tone and a feeling of atmospheric effect to the whole sketch which are absent in the first print. But though they are absent they are latent. It needed the "killing" of the dull white, unatmospheric space of the sky to bring them out. With the addition of the sky the sketch gains in tone colour; it becomes atmospheric; the trees, which in the first print appear to be stuck into the cottage, recede into their atmospheric plane behind it; the white of the cottage receives a new value; the whole effect is richer and fuller of sunlight and air.

FIG. 23.

With this simple example before us we may suggest a few hints for actual practice.

1. If the sketch is not to have a sky treatment, use up

Fig. 24.—A Dull White Sky.

all resources of tone colour and values at command for suggesting texture and atmospheric perspective.

FIG. 25.—Enhanced Tonal Values due to Simple Sky Treatment.

2. If the sketch is to have a sky treatment, give the landscape extra "grit"—that is, work to a deeper scale of

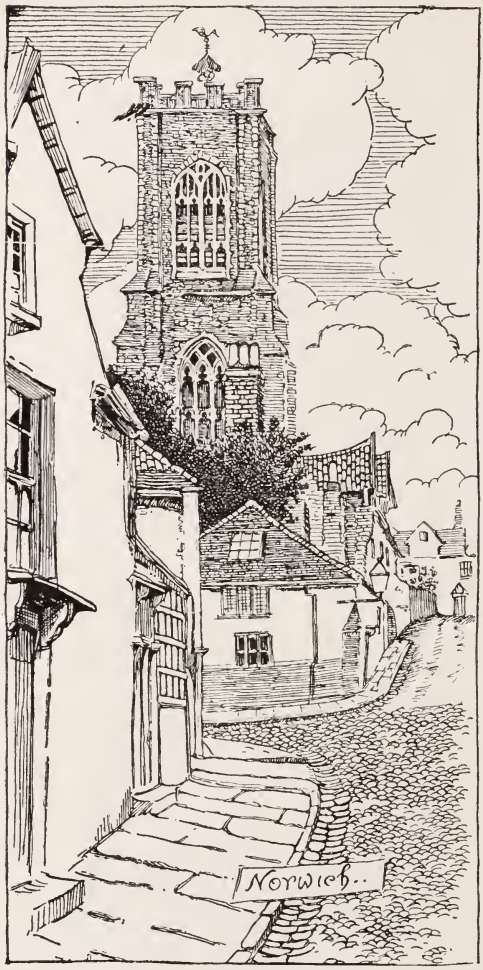


Fig. 26.

relative tone values, and define the texture of the landscape more severely.

3. Get some suggestion of the sky on to the sketch as soon as possible — not necessarily first, but quite early in the drawing. This practice, in earlier attempts at sky portrayal, and until the draughtsman works with a surer pen, will force the hand to a grittier treatment of the landscape. It will thus help towards obtaining a nearer approach to true relative tone values as between landscape and sky.

4. Keep the landscape clear of the particular technical treatment with which the sky is to be suggested. Similar tones may appear, but it is better that the same scheme of linework producing them should not.

5. If the sky is to go in last, the effect which it will have

upon the completed drawing must be kept in mind throughout the working.

6. Work from the intangible, atmospheric effect of the sky up to the tangible texture of the landscape—that is to say, work in the softer tones first. There is a definite limitation in the power of the pen of expressing soft or delicate tones, but there is considerable latitude at the other end of the tone scale for expressing grit, ruggedness, depth or sombreness of tone.

7. "Place" the sky in the composition so that it may receive and impart greater contrast by juxtaposition to different features in the landscape.

Fig. 27.

We shall find that the introduction of skies will demand a fuller treatment of the landscape. There is a great competition of tonal values between tones in the landscape and tones in the sky. If these tones are not properly adjusted and contrasted, we may find that they will rob each other of their value instead of each en-

hancing the other as they should. In Fig. 26, for instance, the whites on the foreground cottage and in the clouds *compete*, and the result is that they are mutually destructive

Fig. 28.—"Compositional" Direction of Line in Sky Treatment.

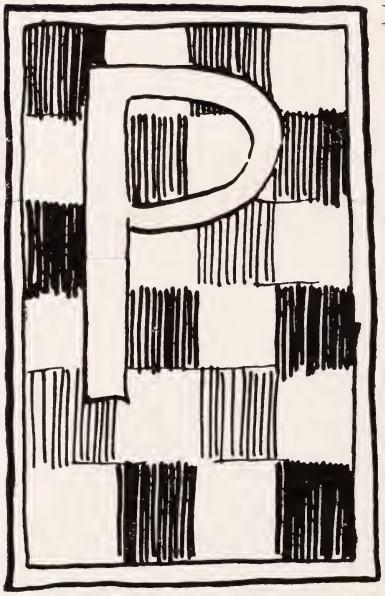
of tonal value. In Fig. 27 this same foreground cottage has been given a tone and texture suited to its atmospheric plane, and the result is that each—the cottage and the sky—lends to the other an enhanced tonal value.

This aspect of mutual help and mutual robbery of value is one of the principal considerations in combining landscape and sky; and while we cannot lay down any law that the landscape *must* be packed with detail or covered by some tone colour, we can strongly advise the student to consider in all its aspects how the tones may be emphasized or modified so that they will be mutually helpful. It is more often that the landscape will rob the sky than *vice versâ*, and the last touches to a sketch may well be those which aim at killing the white tones in the landscape which are robbing the sky of "light."

No landscape sketch should be considered as complete without some suggestion of sky tone, however slight the actual treatment may be. As soon as the young draughtsman attempts landscape drawing, we would advise him to equip himself with some part of the technique of sky portrayal, and rarely, or never, be content with a mere plain, dull, white space. Some draughtsmen have just two or three "skies" —a sort of stock-in-trade—one of which appears in each sketch. It is better that the beginner should follow this plan than that he should leave his sky empty. It is noteworthy that when some "new" sky treatment appears, it is invariably the first thing which catches the eye. We like it or we do not like it; the attempt has succeeded or it has failed; but, whether a success or not, we must always respect and applaud every honest attempt at sky portrayal; for there are possibly greater difficulties in sky technique than in any other technical branch of pen-and-ink landscape drawing.

CHAPTER XII.

AMBIENCE.



PERHAPS the most fleeting, certainly the subtlest, point of pen-and-ink drawing remains yet for us to deal with. It is *ambience*, or the play of surrounding light. While it may at first seem to be but another aspect of atmospheric perspective, it represents in reality a different and much subtler aspect of pen drawing. Aerial perspective is concerned with the effect of intervening atmosphere. Ambience deals, not with the amount of light which a thing receives, or with the haze of atmosphere, but with the "*glow*" *of light* or warmth which parts of the subject reflect or throw back.

Ambience is the culmination of all drawing or painting. In its representation we have the nearest approach to the truth of what the eye sees. All the branches of technique of the medium are absorbed by it ; it is, as it were, the crowning

glory of their subtlest combination. The form, the tone colour, the texture, the aerial perspective of our sketch may be true to Nature, and show artistic perception and technical skill; but the sketch needs yet another quality to raise it above the level of a mere technical display, no matter how theoretically perfect the technique may be: it needs ambience—to glow with light and warmth; in other words, it needs to be *alive.*

The Normal and the Ambient Scale.—Fig. 1 shows the distinction between the normal scale and the ambient scale.

The tones of the normal scale (as represented on the centre bar of the diagram) range from the normal whiteness of the

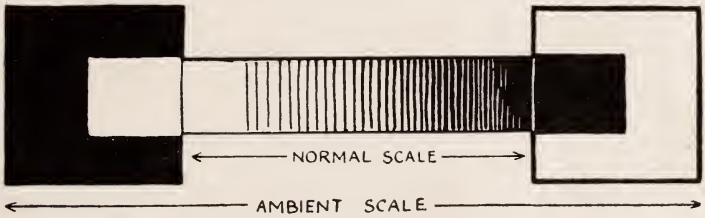


Fig. 1.

paper to the normal blackness of the ink. The tones of the ambient scale expand beyond those of the normal scale at both extremes of tone.

The ambient scale differs from the normal scale in two important tonal respects—in respect to quantity and in respect to quality. It varies in quantity in that there is an extension of tone values at either end of the tonal scale—on the one hand to a blacker black, and on the other hand to a more luminous white. It differs also in quality, for in actual practice we find that intermediate tones can be made to glow with an added lustre, and to vary their aspect with the proper adjustment of their environment.

This second aspect coincides with the principle which underlies the art of wood-engraving. In Fig. 2 we show a pen-and-ink drawing done after the style of a woodcut. In this, every white corresponds in shape to, and represents, as it were, a cut made in the block with a wood-engraver's tool; while the blacks correspond to those portions of the wood-block which have been left untouched.

This scheme of cutting whites out of black is the essence and the charm of the woodcut. If treated very boldly, the result is solid masses of black and white; and as a reaction from niggling and toneless pen-and-ink drawing, the result is very refreshing.

But with all its charm there are few mysteries or secrets in wood-engraving which are not open to the pen-and-ink draughtsman. And while I firmly believe that the wood-engraver's aspect of black-and-white drawing—that is, the principle of placing whites on black, and not *vice versâ*—is fundamentally the true aspect, I also believe that with process reproduction—including the half-tone process—brought to the high state of perfection as it is to-day, there are few, if any, technical or artistic results attainable through wood-engraving which cannot be drawn in pen and ink.

But far from there being any unfriendly rivalry between the two arts, they should be mutually helpful, and pen and ink undoubtedly owes a debt of gratitude to wood-engraving for revealing this artistic aspect of black-and-white drawing. The pen-and-ink draughtsman who fully appreciates the beauty of this aspect of white on black, and who keeps the idea in front of him even throughout the most intricate piece of linework, and while actually working in black on white, should find his work attaining to a higher standard of tone quality, and his powers of artistic perception constantly enlarging.

Having called attention to this valuable lesson which pen

Fig. 2.—After the style of a Woodcut.

and ink may learn from wood-engraving, we would further advise the pen-and-ink draughtsman, while borrowing inspiration from the tonal scheme, to avoid copying its methods from a purely technical point of view. As art mediums they are closely allied, but in their underlying technique they are widely different, and although precisely similar effects may be produced through either medium, it will generally be found that just those very effects which may be produced by simple technical means in one medium are very laborious or unnatural of expression if an attempt be made to produce an exact replica of the result in the other. This fact is well exemplified in "cross-hatching" in the two mediums: where, in the case of pen-and-ink cross-hatching, we have black lines crossing black, in wood-engraving we have white lines crossing white—results which are peculiar to and simply produced in one medium, but foreign to or at least laborious of attainment in the other.

The technique of ambience cannot be treated as we have treated the technique of other branches of our art. In the foregoing pages we have treated of linework as expressing *form ;* as influenced by *tone values ;* in its relation to *texture ;* as governed by *aerial perspective ;* and we have seen how these branches of pen-and-ink technique combine, intermingle, and overlap, and how they co-operate in producing one harmonious whole. Ambience pervades them all ; it represents their use and combination in the subtlest form ; for although the effect of ambience may be thought of as a thing apart, it cannot be said to have a separate technique for its portrayal. It is the subtlety of art which is above and beyond the mere devices of technique. It is the art which makes our whites shine with light and warmth, our grays shimmer with colour and texture, our blacks glow with reflected light, with chilly coldness or glowing heat.

But while we cannot say that any particular technical methods will produce the effect of ambience, we can at least assert that some practices and devices are conducive to its

FIG. 3.

production, while others will tend to destroy it, or at least to minimize it. We will analyze our technique in its relation to ambience.

1. *Facility.*—First, I do not think that the effect of ambience can be produced in work which is done slowly or laboriously. The ability to suggest it can only be acquired after much experience and immense practice have given the worker the great facility which alone comes with complete control of the medium. The first essential is that the work should be done rapidly and spontaneously; not the rapidity of impatience or carelessness, but the dexterity of a facile and controlled technique. This is not to say that a drawing packed with detail cannot be ambient. Detail may abound in profusion, the whole sketch may be nothing but exquisite detail —it may show a regard for accuracy of detail which is unimpeachable. The point which I wish to emphasize is that each individual stroke of the pen, whether in the most impressionist sketch or in one depicting the minutest detail, must be executed rapidly. Pause as long as you like between the strokes, and use slow strokes for the particular tonal or textural effect which they produce, but in any one sketch the vast majority of strokes must be drawn rapidly if the sketch is to glow with ambient light.

2. *Drawing in Outline.*—In drawings which are principally outline, the outlining by separate lines will tend to limit the possibility of producing the effect of ambience. We shall see presently that the effect depends largely upon contrast of tones, especially of adjacent tones. If we are working in outline we cannot obtain the degrees of contrasted tones necessary to produce the effect of ambience. By a subtle manipulation of the quality of the line used as an outline, the suggestion of texture may be imparted; but it is the eye by association rather than any inherent quality in the white space itself which reads the added quality into it. Even then it is the quality of texture and not that of ambience. Nevertheless, certain details in the sketch which are represented in

outline need not detract from the glow of a drawing which is otherwise ambient. It has been partly in consideration of the limited possibility of a drawing principally executed in outline being ambient, that we have so seriously discouraged the use of outlines from the very beginning.

3. *The Value of Blacks.*—The use and value of blacks require special attention in dealing with the subject of ambience. If it be true that there is no such thing as a black in Nature, it is none the less true that there is no such thing as a black on a pen-and-ink sketch. The eye cannot "see,"

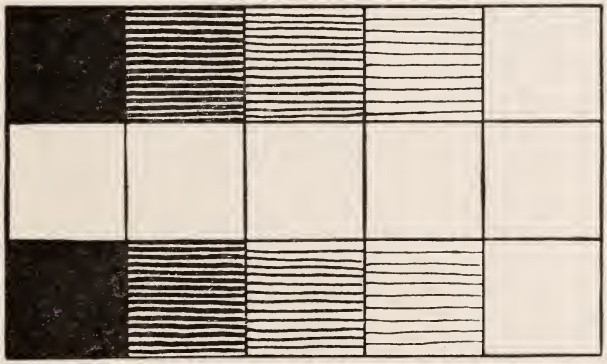


FIG. 4.—Five "Shades" of White.

or we cannot appreciate blackness unless we become totally blind, or place ourselves somewhere where not a single ray of light can penetrate. The objects which we portray by "solid blacks" in pen and ink may or may not be perfectly black locally, but with intervening atmosphere or surrounding light they cannot appear as true blacks to the eye. They may be very deep gray, but they are not black. The same remarks apply to blacks on a pen sketch. However black the ink may be, the eye will see only a deep gray. First, because of intervening atmosphere; secondly, because some

rays of light, reflected by the surrounding tones of the sketch and distributed in the atmosphere, enter the eye and destroy the effect of total blackness. It might at first have seemed reasonable to expect that blacks introduced into pen sketches would have tended to destroy the effect of ambience. But precisely the opposite is the case: they tend to enhance the effect. Not only do we find that blacks may "glow" with light and heat, but their value by contrast greatly enhances the ambient glow of other tones, especially the other extreme tone, white.

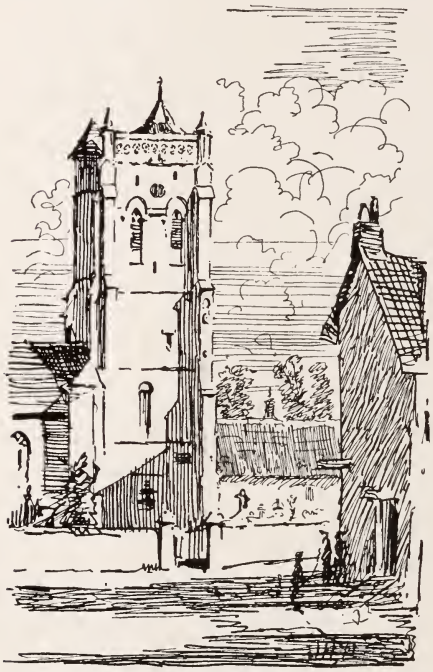


Fig. 5.

Notice, again, the aerial perspective tone chart (Fig. 1, Chapter X.). We make the claim that the white in plane one is *whiter than the white* of plane two. Of course it is not so locally, because they are identical pieces of paper; but by juxtaposition to a blacker tone the whites in plane one of the diagram "glow" with an added "light." They are "lighter" than the "white" paper. This "glow" is ambience. It is an added quality which the space of paper gains by being surrounded by or placed in contrast to the blacks. Thus we might in this case further describe ambience as being the quality of *light* added to the

quality *whiteness*. In the same way we shall see that it is *colour* or *texture* added to the quality *grayness*, and *reflected light* added to the quality *blackness*.

Blacks of considerable dimensions may be introduced into

pen drawings. A "solid" black disproportionate to the style and size of the sketch will generally have a displeasing effect; but it is safe to recommend that every sketch should have at least one good black, if it is only for the sake of the added ambient light which it lends to every other tone in the sketch.

It will increase the " scale " of relative tones, and, by contrast, will tend to impart additional " colour " value to intermediate tones, and glow of light to the whites. Nevertheless, " solid " blacks should not be disproportionate in size to the nature of the drawing, or too numerous. One real black—not a dull black, but a luminous black—may suffice if it is properly placed in the composition. Beyond this the number of subsidiary blacks needs careful adjustment in size and " placing," as each may rob the other of tonal value.

4. *The Value of Whites.*—In a previous section we stated that we have nothing whiter than our white paper. While this at first might have appeared to be a self-evident statement, and somewhat superfluous, it is not only not true, but the real truth of the matter lies at the very heart of the question of ambience. The statement needs seriously qualifying.

Let us once distinguish between the quality " light " and the quality " whiteness," and we shall realize that our " whites " may be made to glow with an added " light."

Whites in a pen-and-ink sketch may be of two kinds—those which are merely the whiteness of the paper, and those which glow with an added light. Whether white spaces " glow " or not will depend upon the way in which they are " framed." To " frame " a white is so to arrange the lines or tones in close proximity to it that in contrast with the surrounding tones it appears as essentially, purposely, and prominently white.

We have already spoken of " killing " whites. The whites which we desire to " kill " are those which have not been left purposely—that is, with the purpose of their having a tonal value as white.

To " kill " a white is to place some mark upon the space which will destroy its whiteness—that is, give it a grayer or deeper tone. It is a most valuable trick in pen sketching, and


J. Hullah Brown 1919
The Catholic Church of the Parish of Thaxted, Essex.

FIG. 6.

a most important point when we come to aim at producing the effect of ambience. It is important for this reason: we can only succeed in making certain limited areas of white glow with ambient light, and in order to make them glow the white spaces must be properly "framed." Now if we have a lot of white spaces which have not been "framed" for the special purpose of giving them "light," we shall find that the presence of these "dull" white spaces will appreciably detract from the value of the "framed" white spaces. The preponderance of these dull white spaces will result in their destroying any ambience which may be latent in the sketch. An example of a sketch in which every unintentional white has been killed may be seen in Fig. 21, Chapter IX.

Even the white margin of the sketch may tend to destroy the effect of ambience. It is better, in looking for ambience, to shut off the white margin completely.

This is partly why so many sketches in pen and ink reproduced as book illustrations are enclosed by a black containing line or even a double line. It results in an added value to the white spaces in the drawing. This containing line should be of about the thickness of the thickest individual line in the sketch; it will then enclose the whites, and not detract from the value of the blacks. When, in book illustration, the drawing is surrounded by letterpress, the tone of the letterpress suffices to make an excellent "mounting." The letterpress will probably represent one of the intermediate tones of the drawing, and while it will prevent the margin from detracting from the value of the whites in the sketch, it will not compete adversely with either the blacks or the whites.

To vignette a sketch all round its edge is to run the risk of the surrounding whites detracting from the value of the whites in the drawing, and so to destroy their ambience; for

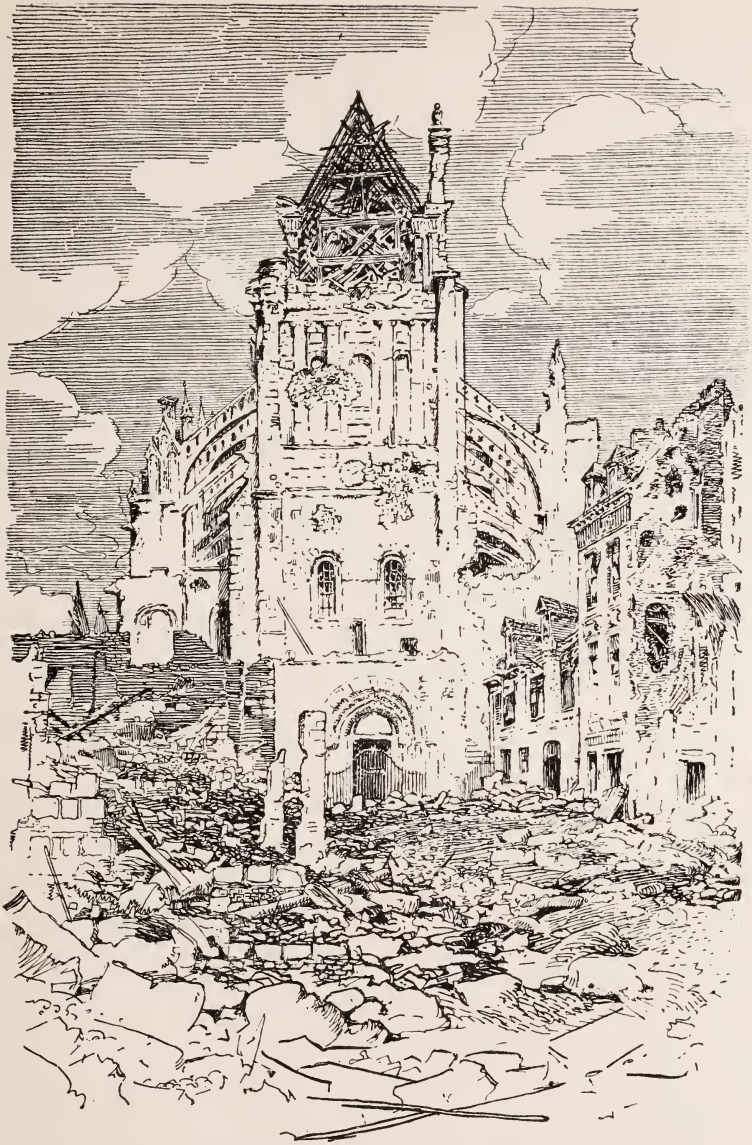


FIG. 7.—ST. QUENTIN CATHEDRAL.

this reason the whites round the edge of a sketch should be carefully manipulated.

The ambience of a sketch can frequently be increased by killing those whites which are unintentional. In order to do this satisfactorily, first look with half-closed eyes at the finished sketch. By concentrating the mind's eye on the whites, we shall see them (1) as of relative dimensions, (2) as of relative degrees of whiteness. Now continue gradually to kill those dull whites which have not been left intentionally. Do this by placing some mark or marks upon them according to their size or prominence. Let these marks be in accordance with the colour, texture, or nature of the space being " killed." Sometimes a few dots will suffice to destroy their effect of whiteness. Persevering in this process we shall find our intentional whites gradually gaining an added value and lustre. When we have killed all the unintentional or dull whites, we may proceed to grade the value of our intentional whites. First, by slightly destroying their whiteness if desired ; secondly, by so *treating their surroundings* that they gain yet more added lustre, and become more luminous. By these means we may increase the ambience of an otherwise finished sketch.

It must not be supposed that all sketches which have the quality of ambience have been treated in this particular manner, or that all sketches so treated will become ambient. It is much more likely to be true that, from the very first line, every touch must be placed on with the knowledge of its ultimate effect in the finished drawing. The ultimate effect in all its aspects—composition, scale of tone values, textures, atmospheric perspective, and ambience—must be preconceived and mentally visualized. Then the trouble begins ; for each line as it is added needs to be such that it will add its individual quota to each and every aspect of the final

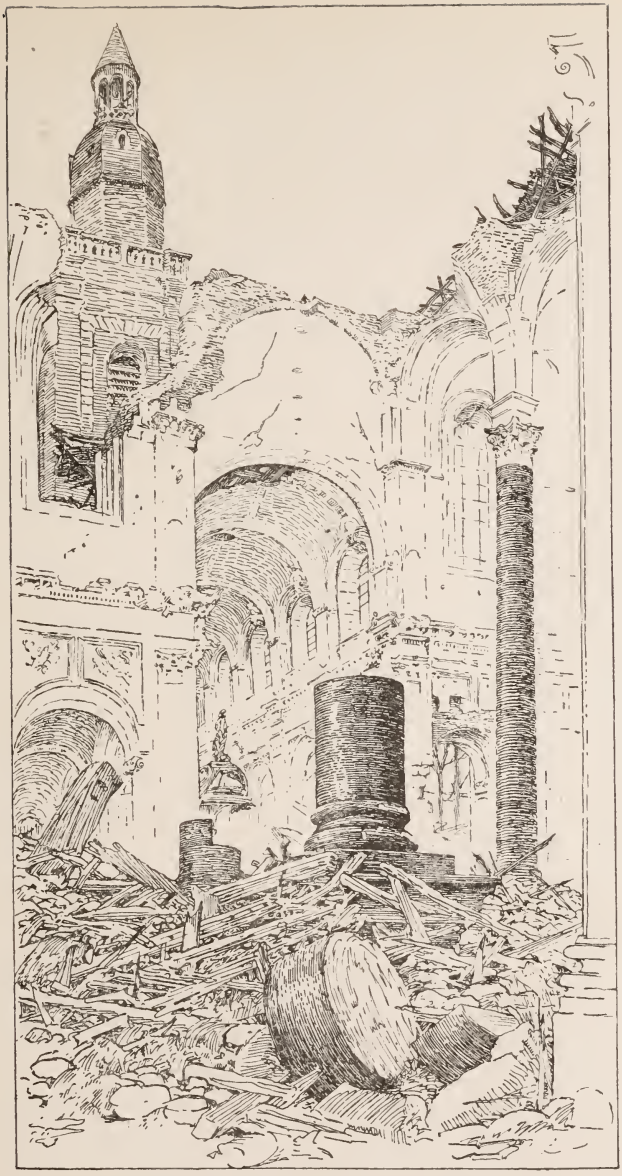


FIG. 8.—ÉGLISE ST. GÉRY, CAMBRAI.

sketch, and not detract from the value of any other line. No line can be considered as a thing in itself—as if drawn for a single purpose—for each additional line is indirectly affecting the quality of those which have gone before, and each line will in its turn be still further affected by everything which comes after it. Only individual experience and practice will teach us the beautiful subtlety of this inner working.

It is this fact—that unintentional or dull white spaces destroy or minimize the tone value of the intentional whites—which makes it desirable that a landscape drawing should have some sky treatment. If the "sky" is merely a "dull" white space it will inevitably detract from the tone value of the landscape. Quite a simple sky treatment may suffice to destroy the dull whiteness of it, and give the sky just that feeling of light and texture which will allow it to enhance and not to destroy the value of the whites in the landscape.

A New Aspect of Pen Drawing.—Coming to the root of the matter, we find that the effect of ambience depends for its existence and for its degrees of suggestion upon *the added qualities imparted into tones by contrast, juxtaposition, or proximity to other tone strengths and qualities,* and this brings us to an entirely new aspect of pen drawing, an aspect which we have already foreshadowed, and which now needs to be treated more fully. This new aspect is opposed to the idea that pen and ink is linework, and has for its fundamental principle the production of whites, the "framing" of whites, and the manipulation of their surroundings so as to impart to white spaces of paper the additional qualities of light and colour. Presenting this new aspect in possibly an exaggerated form, we might compare it to drawing in luminous white chalk on a light-reflecting blackboard.

Our two illustrations of York Minster (Figs. 9 and 10) present the same subject treated from two points of view.

FIG. 9.

The results are very different, and we desire to know precisely what has happened, and how it has come about. We may dismiss the first example as being an ordinary linework sketch executed with due regard to all the aspects of the technical treatment of landscape drawing with which we have already dealt, detail by detail, in the preceding chapters. It is a linework study in direction and strength of line, in contrasted tone values, in texture, in aerial perspective, in relative tonal value between landscape and sky. The sketch was built up gradually in its different parts, and the sky added quite early in the working in order to suggest it in approximate relative tonal value; unintentional whites have been reduced in number and prominence with a view to imparting sunshine to the lighter tones and to the sketch as a whole. In every respect it may be considered as an honest piece of pen-and-ink linework.

The second example was drawn from an entirely different standpoint, and the order of workmanship was inverted. It contains several faults introduced intentionally, from which we may learn valuable object lessons. For the student who is interested we will describe the manner of its treatment.

The preliminary pencil sketch was completed and made considerably fuller in detail than the final pen drawing. In working with the pen, the first object was to treat the sky with the strongest tones—short of jet black—which the sketch could possibly bear. It was our object to impart into the white cloud the effect of " light " many degrees lighter or whiter than the white paper, giving the cloud a vivid effect of light which would, by comparison, put the cloud in the first example literally in the shade. With this in view, the horizontal lines depicting the blue sky were drawn very boldly. In order still further to increase the difficulty of the problem of linework in the landscape, a deep, almost black-toned, cross-

FIG. 10.

hatched patch of tone was added to the sky. This patch is merely a *test* tone placed on the sky with the object of finding out what was the greatest depth of tone in the sky it was possible to work up to in the landscape.

In the landscape the minute detail of the pencil sketch was ignored; only the bolder shadows are defined, and in most cases the object has been so to place on the blacks that they serve the principal function of lending tone quality, or the effect of light, to the whites. There are, however, certain parts where this fundamental idea has been departed from; it will suffice merely to instance the treatment of the wall in the foreground to draw the necessary distinction. Where the bricks in the wall and the cobble stones in the roadway are shown as *framed whites*, the treatment, according to this new aspect of pen drawing, is correct and successful. Where, however, the bricks are indicated by blacks or deep tones, the treatment is wrong, and the effect is not satisfactory. There are other places in the example in which the principle of framing whites has not been applied; but the drawing will suffice to call attention to this particular aspect of pen-and-ink work which may be described as the "white-framing" method.

We must call attention to another important fact which is well displayed in the example. It is the fact that we have vastly extended and expanded our scale of values. A comparison of the two examples will show some of the intermediate tones to be equal in value; but whereas in the first example the range of tone lies approximately between tone twenty and tone eighty, in the second example we have extended the value of our whites so that they approach more nearly to tone one, and at the same time our blacks more nearly approach tone one hundred. Fig. 11 is the same subject treated in its entirety on the white-framing method.

Fig. 11.

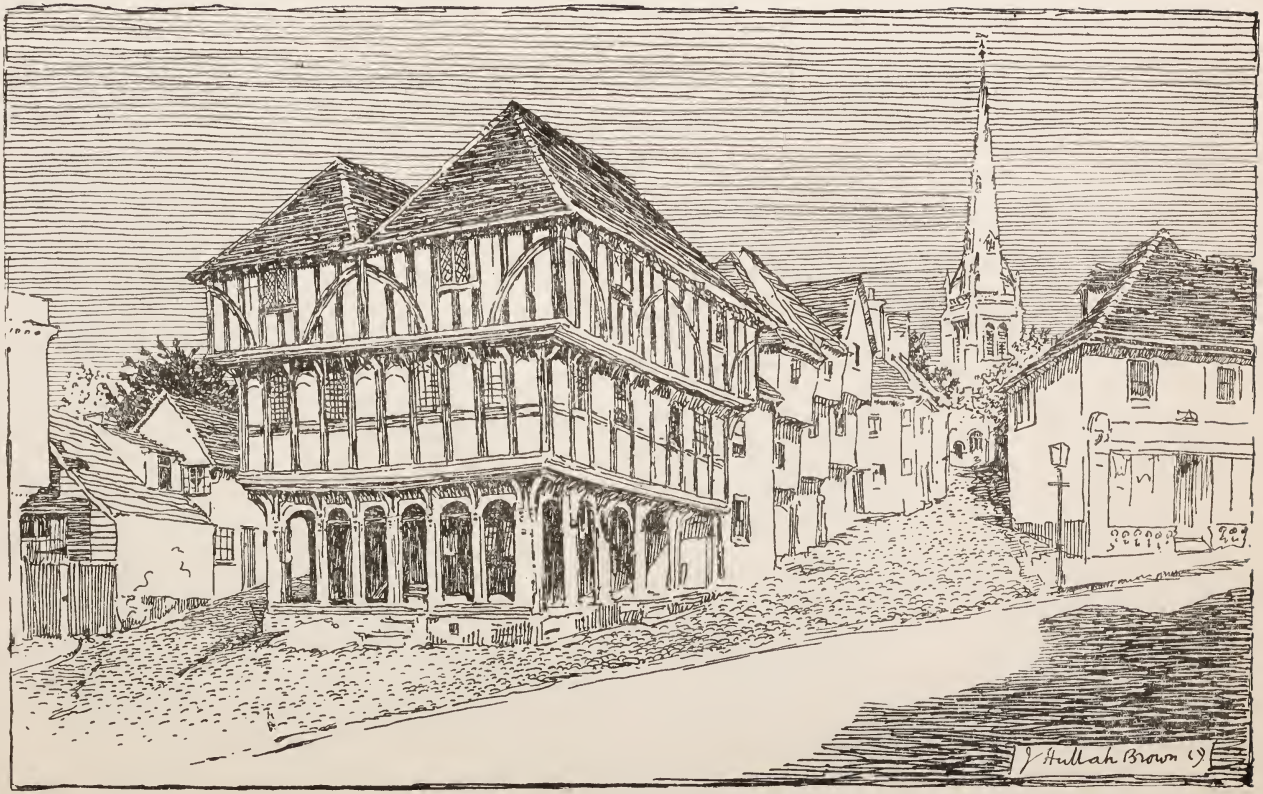


FIG. 12.—MOOT HALL, THAXTED.

This second aspect of pen drawing may exert such a powerful influence over the technique that it may almost overrule all other considerations. It will account for an enormous amount of falseness of tonal values. In fact, it may be said that it is inherent in the aspect to exaggerate the tones—to reach out towards the farthest limits of false relation compatible with anything short of ugliness or absurdity. It may lay such hold upon the draughtsman's outlook as to ruin his drawing entirely; or it may so distort his conception of beauty in the other aspect of pen drawing as to lead him into a style of drawing which is grotesque and unintelligible to everybody except the artist himself, who reads added qualities into the sketch which the normal mind cannot appreciate. Thus it may prove a fatal mistake to aim too directly at producing the vivid effect of ambience. It is possible that the happiest path lies—as it generally does—in some intermediate course. And between the two extremes of style there is the happy combination of them. They are not opposing aspects or forces which are mutually destructive, and our aim should be to combine the simple charm of one with the indisputable artistic merit of the other. For while the broad distinction between the two aspects is one of basic principle, and while the methods of the first can rarely encroach upon those of the second with a successful result, the methods and secrets of the second are constantly being employed in the first, always lifting it to a higher level of artistic attainment.

It is, in fact, their combination which brings about the happiest results, for while in the second aspect there is a tendency to abandon intermediate tones and deal only in blacks and whites, in their combination we may freely use all gradations and qualities of intermediate tones, and by means of the " framing " devices peculiar to the second aspect, impart to them additional qualities of light, colour, or reflected

Fig. 13.—An Ambient Study without Strong Adjacent Contrasts.

light; and, lastly, as the crowning glory of their happy combination, we may so increase our scale of relative tonal values that we obtain whites which are whiter and more luminous than the white paper, and blacks which glow with ambient light.

Fig. 13 shows an ambient sketch in which hundreds of tones are shown intermediate between black and white, and yet in which the device of framing whites is resorted to only to a very limited extent. This will suffice to show that the effect does not depend entirely upon strong *adjacent* contrasts, but to a great extent upon the quality of tone and the manipulation of the strength of the lines producing the tones.

The combination of the two aspects in a simple subject may be seen in Fig. 12. The sketch appears as essentially linework; but the "white-framing" principle of the second aspect is applied throughout its working, and although intermediate tones are freely introduced, the combination has resulted in a sketch showing a considerable amount of ambience. Fig. 14 is an open landscape study in aerial perspective and ambient sunshine.

Having thus analyzed the technique of this new aspect of pen drawing, we may perhaps profitably suggest methods of procedure in building up a sketch on the white board. We have analyzed finished drawings, and reduced them to their component parts; but this chapter will not be complete unless we indicate the process of construction and our choice of methods. For this purpose we show workings from the same subject approached from different aspects. Now, before we commence the actual work in any style, we need to do two important things—first, to reduce the subject to terms of relative tonal values in black and white; secondly, to set the limits of our tonal scale. The first is generally performed mentally, and the accumulated knowledge gained from ex-

FIG. 14.

perience guides us more and more unerringly in the process of translating the coloured subject into terms of black-and-white tonal values. With regard to the second, the necessity

Fig. 15.

of predetermining the scale of tones within which the sketch is to be contained is apparent, seeing that without this we cannot determine what degrees of contrast are available for

Fig. 16.

intermediate gradations of tone. *Within very wide limits, the choice of scale is a matter of pure artistic perception.* It may be our aim to limit the tones within the smallest scale, or to extend them to the fullest possible range of ambient contrast.

Fig. 17.

Of the four accompanying sketches, the first represents the process of reducing the subject to the tonal values of our medium within a certain limited tonal scale.

The second sketch is a drawing showing close appreciation for detail, but following closely the tonal scheme of the first

Fig. 18.

example. Nearly all the tone values are produced by lines which at the same time indicate detail. This is possibly the simplest form of pen sketching, and represents a perfectly legitimate style of work.

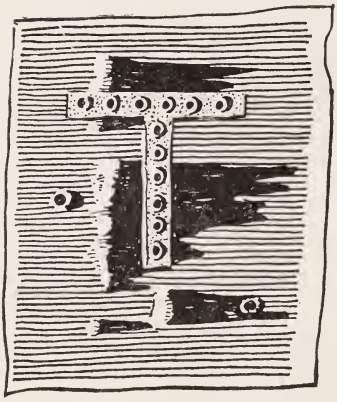
The third sketch shows less regard for detail, and aims more directly for ambience. This latter treatment has automatically resulted in an extension of the tonal scale, and this expansion is noticeable principally in the greater luminosity of the whites. It may be considered as an advance on the methods of the previous study—first, as depicting less and suggesting more; secondly, as being more ambient, and as producing a greater apparent scale without using stronger tones.

In the fourth example we have abandoned the original tonal scale and confined our extremes—both on the black and on the white side—within very narrow limits. In this the relative tonal values are still retained—that is to say, there are as many contrasted tones as in the other examples—but the ratio of gradation is reduced in order to keep them within the narrower limits.

These treatments represent a few of our legitimate methods of procedure. The principal object lesson which the student should learn is that bearing on ambience, and he will find that while ambience depends for its production upon contrasted tones, it must also be noted that an ambient treatment tends in itself to expand the tonal scale of the sketch; to add tone value to all parts of the drawing; and to produce an effect which most nearly approaches to the truth of what the artistically cultivated eye really sees.

CHAPTER XIII.

WORKING FOR REPRODUCTION.

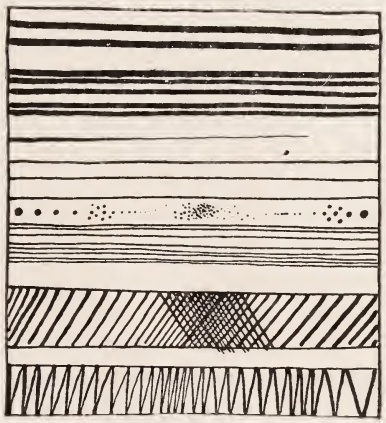


THE processes by which black-and-white drawings are reproduced in print have been carried to such a state of perfection that the quality of pen, chalk, or pencil lines can be given with extreme fidelity. It is safe to say that by one process or another any black-and-white original can be reproduced successfully. If it is desired to reduce the drawing in size in the print, there are certain limitations which must be taken into serious consideration. Drawings which might give satisfactory results when reproduced the size of the original, or when only slightly reduced in size, may be incapable of a successful large reduction by any process. But as a rule the original sketch is drawn both with the knowledge as to the extent to which it is to be reduced in size, and also with the knowledge, gained from experience, of what kind of treatment is best suited to the amount of reduction the drawing is to undergo.

How to Adjust the Dimensions of a Drawing for Reduction

in Size.—Supposing that no special proportional dimensions are required in the print, it is necessary only to indicate to the engraver the size required by giving the height, as: Reduce to 5 inches high, or $2\frac{1}{4}$ inches high, or merely reduce to ↑ $3\frac{1}{2}''$. Or it will suffice to indicate the width only: Reduce to 7 inches wide, or $1\frac{3}{4}$ inches wide, or merely → $4''$. Still further, it would suffice to indicate a reduction to one-half or five-eighths, indicating the height or the width.

It is not sufficient merely to give instructions to reduce the drawing to *one-half*. There must be no ambiguity between one-half of the *height* and one-half of the *area*. It is necessary to state explicitly which is intended, for the results are by no means the same in both cases. If the instructions say one-half of the *area*, the engraver will adjust the reduction himself; and supposing the original to be 9×6 inches —that is to say, having an area of 54 square inches—the result will be a print having an area of 27 square inches, the dimensions being exactly proportionate to the original—in this case, 6.357×4.243 inches (approximately).



But supposing the instructions had been to reduce this same drawing (9×6) to one-half the *height*, the size of the print would then be $4\frac{1}{2} \times 3$ inches, which gives, not 27 square inches, but $13\frac{1}{2}$ square inches.

If it is desired to know what dimensions the print will be after undergoing any particular reduction, the two dimensions of the original drawing—that is, the length and the breadth,

must each be divided by the square root of the number which is found by dividing the lesser area of the print into the larger area of the original.

Supposing, for instance, we wish to know what will be the dimensions of our print when it has been reduced to *one-half* the area of the original, we must divide both the length and the breadth of the original by the square root of two—namely, 1.4142... If the reduction is to *one-third* of the area, both dimensions of the original must be divided by the square root of three. And so on with any whole number or any fraction.

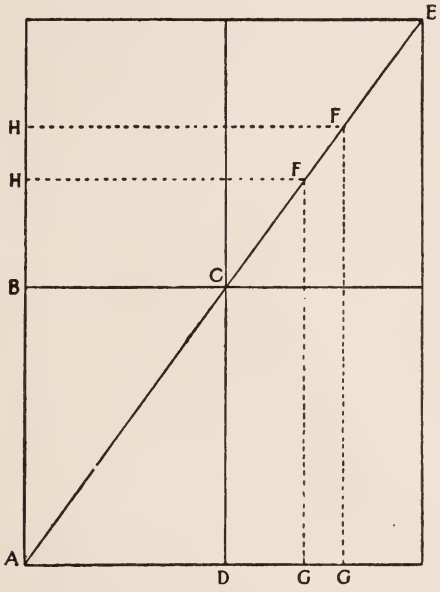
But such reckonings are rarely required to fractions of an inch less than one-quarter, and the instructions should invariably be either to reduce to a definite fraction of the area, $\frac{1}{2}$ or $\frac{2}{3}$ or $\frac{1}{3}$ or $\frac{5}{6}$, as the case may be (in which event the engraver adjusts the reduction to the required area automatically, regardless of inches or decimals), or to reduce it to a certain height or a certain width, mentioning which is intended, and naming, of course, only the height or the width, but not both.

In the case mentioned above, where we found that to reduce an original which is 9×6 inches to one-half the area gave the dimensions of the print as 6.357×4.243 inches, it would have made but a small fraction of an inch difference had we taken the height to the nearest quarter of an inch—that is, $6\frac{1}{2}$ inches.

* * * * * *

Supposing, as is more often the case, that we require the print to be of some definite size both as regards height and width, after the original has been reduced, we must adjust the size of the original so that when the reduction is made it will give exactly the dimensions and proportions required. There is a simple geometrical formula by which we may achieve this with any dimensions of a rectangular drawing.

The simplest method of procedure is to draw a figure ABCD the exact dimension required for the final print, and then to produce the diagonal AC in a straight line AE. We may now take any point F in CE, and through F draw FH, parallel to AG, and FG parallel to HA. The rectangular figure AHFG will then be exactly proportionate to the figure ABCD—that is, the required dimensions of the print.



This method enables us to draw the original of such dimensions that when reduced it will exactly fit a whole page of any dimensions, or a portion of a page of any required dimension.

* * * * * * *

Supposing that at the same time as we require a print of some specified dimension we also desire a definite amount of reduction, say to one-half, or one-third, or one-sixth, of the

area, we can obtain this approximately, as shown in the following table:—

$1\frac{1}{8}$	times	the height of the print	represents a reduction to	$\frac{64}{81}$ or $\frac{4}{5}$ (approx.) of the area.
$1\frac{1}{4}$	times	height	= reduction to	$\frac{16}{25}$ ($\frac{2}{3}$ approx.).
$1\frac{1}{3}$	,,	,,	= ,,	to $\frac{9}{16}$ (a little more than $\frac{1}{2}$).
$1\frac{1}{2}$	,,	,,	= ,,	to $\frac{4}{9}$ (a little less than $\frac{1}{2}$).
$1\frac{2}{3}$	,,	,,	= ,,	to $\frac{9}{25}$ ($\frac{1}{3}$ approx.).
$1\frac{3}{4}$	,,	,,	= ,,	to $\frac{16}{49}$ ($\frac{1}{3}$ approx.).
2	,,	,,	= ,,	to $\frac{1}{4}$.
$2\frac{1}{2}$	,,	,,	= ,,	to $\frac{4}{25}$ ($\frac{1}{6}$ approx.).
3	,,	,,	= ,,	to $\frac{1}{9}$.
$3\frac{1}{2}$	,,	,,	= ,,	to $\frac{4}{49}$ ($\frac{1}{12}$).
4	,,	,,	= ,,	to $\frac{1}{16}$.

In adopting this method it is only necessary to produce one side of the height, and from the point found on this to draw a line parallel with the base until it cuts the diagonal, and from this latter point to draw a line parallel with the vertical side until it cuts the base.

Technical Points to be considered in Working for Reduction.—Without going into the technical details of process reduction, we can at least call attention to some points of pen technique which will reduce with safety and to others which will not; and also to what amount of reduction it is advisable to allow for, and the style of drawing which will be suitable for any amount of reduction.

While lines will reduce strictly as regards their length, it cannot be said that they will reduce in regard to their breadth with an equal degree of accuracy. Some lines will do so, others will not, and it depends upon the amount of "support" which they receive from surrounding lines on the block from which the print is made. Lines drawn close together will support each other, and reduce in breadth with considerable

accuracy ; but isolated lines—that is, lines which have no other work for some considerable distance from them—are apt to show greater proportionate thickness in the print than in the original. The increased strength of the isolated lines is partly due to extra pressure which they receive in the printing press, but it is also due to the fact that the engraver has to strengthen these lines on the metal block to save them from the possibility of being completely eaten away by the acid with which the metal block is treated.

For this reason it is not safe to use isolated thin lines in places where it is essential that they should be thin in the print. In the sky, for instance, the original might show an isolated line as thin as a drawn thread, whereas in the print it may come out with the appearance of a barge rope, and be completely out of keeping with sky work.

While this warning is necessary as regards *isolated* thin lines, it does not apply to thin lines which are properly supported. The support may come from adjacent thick lines, but adjacent thin lines will offer all the support which is necessary. The reason lies in the fact that whereas the acid will eat deeply into the metal block on either side of an isolated line—thick or thin—leaving the line standing prominently exposed, it will eat but slightly into the metal when the space between the lines is small, so that thin lines drawn closely together will adequately support each other.

This question of the closeness of the lines brings us to the next important point. When it is understood that the closer the lines are together the less deeply does the acid eat into the metal in the spaces between them, it will be realized that in reducing the original we may so reduce the width of the spaces between lines that the acid will barely affect the surface of the block at all. When the limit of closeness has been reached, the lines no longer print separately, but the space

becomes filled in, and the two lines appear as one, having run together. They may fill in on the metal block itself, or they may ink in in printing, even though they show as separate lines on the block.

So that with regard to the closeness of lines, we must consider how close they will be on the print after the reduction has been made. Supposing, for instance, that the greatest number of pen lines to the inch which a print can show separately to be one hundred and twenty, then we must never demand a reduction from the original size which will bring the lines closer than this in print. If we do so, the lines will lose their individuality, and instead of clean linework we shall have blurred, smudgy patches.

Even in pairs of lines we shall find them distinct only so long as they are a certain distance apart; if, in their course, they should run so close together that the print, after reduction, will fail to separate them, they will, at such places, print as one line. This running together will show a line much thicker than the original single line, and may appreciably affect the tone quality and detail of a sketch if this fault is at all prevalent.

The white spaces between adjacent lines will be liable to this fault in the print regardless of the *thickness* of the lines. So, although we cannot lay down any definite proportions which the white spaces should bear to the thickness of the lines on the original, we can set a limit to the width of these white spaces on the print. Whether they will run together in the print does not depend upon their distance apart in the original, but upon the amount of reduction they undergo in the print.

Lines which actually converge in the original may, in the print, show the point of convergence a little earlier than in the original, but not generally to so great an extent as to affect appreciably the tone, quality, or detail.

Isolated dots suffer in a similar way, and from the same causes as those affecting isolated thin lines. They over-print. But here again, if the dots are supported either by adjacent lines or by being drawn in clusters, they will appear separately and of accurate proportional dimensions, even down to very minute dimensions, as in splatter work.

Cross-hatching generally comes out well; but if the intervening white spaces are small in relation to the thickness of line, there is again a great risk of their inking in.

Work done rapidly reproduces better than slow laborious work does. The latter loses in brilliancy, while the former rather gains in that respect.

Speaking generally, it is not advisable to introduce rough and careless work anywhere in the expectation that reduction will smooth it over. Foreground work, for instance, may be strong and bold in linework, but rough or dirty drawing in the original will almost certainly come out unsatisfactorily in the print.

The device which is sometimes used of covering a space with a dotted gray tone is produced by the engraver. Where this effect is required it must be indicated on the original, usually by covering the space with a blue pencil tone. If it is undesirable to blue-pencil mark the original, the spaces which are to be covered in this way must be indicated by some other means.

The Amount of Reduction.—It is safe to say that finer work can be shown in print than can be drawn with the pen. So that no matter how fine the original may be, it is capable of reduction to *some* extent. The extent to which a sketch will reduce satisfactorily will depend upon the style of linework. And, moreover, it will depend, not upon the sketch as a whole, but upon those portions of the drawing which show the minutest detail or the thinnest linework. The amount of

reduction which the finest possible pen drawing will admit of is to about two-thirds of the original area, or, roughly speaking, to four-fifths of the original height. As the work becomes more open and the lines thicker, so will it be capable of greater reduction, until we come to a sketch in bold style which might adequately reduce from, say, thirty-two inches high to four inches high—in other words, to one-sixty-fourth of the area. This does not represent the limit of black-and-white reduction, but it is approaching the limit of *pen* work reduction. By increasing the boldness of the linework, either by using charcoal lines or ink lines drawn with the brush, work can be produced which will admit of even a greater reduction than to one-sixty-fourth of the original.

One important thing to bear in mind is, that in examining a drawing with a view to the amount of reduction it would be capable of undergoing satisfactorily, it must be judged by the finest or minutest portions of the sketch.

For the young draughtsman having his work reproduced for the first time, we would advise him to choose two of his sketches of any style of work—one in clean, open work, the other not—and have two blocks made from each, one from each original being reduced to three-quarters the height, the other reduced to half the height of the original. The cost is reasonable, and the local stationer will see the thing through, or the originals may be sent direct to a firm of engravers. This should be done before the draughtsman begins to adapt his technique to the requirements of reduction, and from such an experiment he will learn what kind of work reproduces successfully, and where his work fails.

When first working for reduction, the young draughtsman may either continue to work for the same amount of reduction in every case—say, to two-thirds of the original area—or he may plunge into bold, large-sized drawings with a J nib

combined with brush and charcoal work, avoiding all niggling detail, and allowing for a reduction to one-sixteenth or one-thirty-second of the area. If he can do this latter with success, we should advise him to continue to do so ; but, as a rule, it is only arrived at after considerable experience of reduction on a smaller scale.

It may be of interest to give the sizes of some of the originals reproduced in this book. Caudebec Church and Lincoln Cathedral are each twenty-four inches high. On pages 170 and 176 they are shown reduced to five inches high. This represents a reduction to approximately one-twenty-fifth of the original area. The original of the sketch on page 239 is thirty inches high ; it is here reduced to one-thirty-sixth of the original area.

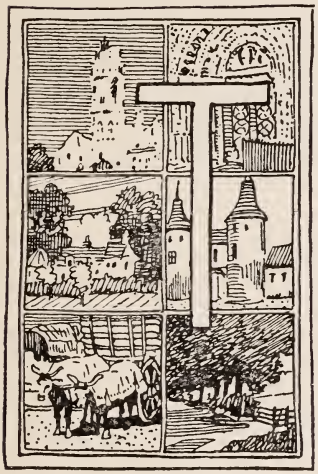
The sketch on page 241 is twenty-six inches high, while those on pages 95 and 224 are about twelve inches on the longest side. Other than the drawings, which have obviously undergone a big reduction, we have intentionally drawn the originals so that only a slight reduction was necessary to meet the requirements of the size of the page. The sketches of York Minster, pages 243, 245, and 247, were drawn only slightly larger than the print. In most cases the slighter illustrations were purposely drawn the actual size of the print.

In examining prints with a view to ascertaining the amount of the reduction they have undergone, sometimes the style and size of the signature may be a guide ; the signature on page 210 is, however, about four inches long. A more certain guide is to examine the print with the aid of a magnifying glass, when it is often possible so to magnify the lines that we seem to see with a considerable degree of accuracy and certainty the actual size of the original by the peculiar details or characteristics of the original line—the length, the peculiar

hook at the end or beginning of the strokes, or the difference between the strokes of an open or unopened nib. The examination of these and other points will often allow us to judge of the size of the original within a narrow margin of error.

CHAPTER XIV.

HINTS ON THE STUDY OF PEN-AND-INK DRAWINGS



THE draughtsman has been earnestly recommended to study all available pen-and-ink work, especially that by good men. It is rarely that opportunities are afforded of seeing the originals, consequently we are restricted to studying principally from reproductions. In the great majority of cases these reproductions are reduced in size from the originals. The process of reproduction being, however, so nearly perfect, and the originals done with such a precise knowledge of the results, the student hardly suffers from such restrictions. Nevertheless he should endeavour to study from the originals, especially if they can be compared with the reproductions. Reproductions are sometimes misleading on account of the enormous reduction they have undergone in the print. In some cases reproductions which have the delicate appearance of pencil work have been drawn in charcoal on an imperial sheet. By the aid of a magnifying glass the student can frequently find out how much the drawing has been reduced.

If this study is to be really profitable it must be intelligent and systematic, and it may well be carried on in conjunction with the technical points as they have received attention in this work. Direction of line, outlining, tone, texture, cross-hatching, aerial perspective, skies, ambience, and many other points touched upon will repay careful research.

The reader must not expect always to find examples of these points presented in their simplest form, for in work of even modest pretensions each branch of technique acts and reacts (as we have seen) upon the others. The expert worker has all resources of technique at his pen's end, and with true economy of workmanship the individual lines are constantly made to fulfil several functions in detail, while they must still further be considered as sharing in the total result. It is this subtle inner working which makes the study of reproduction and originals difficult.

It is noteworthy how much of the pen work is executed with a simple stroke of a definite thickness; but careful research will disclose the frequent and delicate use of subtle gradations of strength. Good work has never come by chance or accident, and the obvious freedom of the expert is, to the uninitiated, sometimes misleading. The tendency of present-day pen-and-ink drawing is towards great rapidity of execution, for without this rapidity "ambience" will almost certainly be missed.

In planning this book we have gradually shown the different functions of lines, and how these functions may be combined. In examining finished work the process of dissection operates in the other direction, and we have to resolve the effects into their component technical parts. A doctor examining a heart through a stethoscope has to eliminate all extraneous sounds, such as those caused by the clothing and lungs, and every sound except those of the heart. The novice cannot achieve

this. Something of the same kind of difficulty confronts the young draughtsman in his attempts to learn from the workings of a master's pen. That there will be a definite purpose in almost every line we believe of the very best work; but that the full purpose will always be revealed to any who have not learnt to bring the experienced critical faculty to bear on their study is more than can be expected.

Let us take a few simple cases of searching for examples of points already treated. Suppose we are investigating lines which vary in strength in the course of a single stroke. The elementary use of such lines is shown on page 52, but we shall not have to seek far to find them applied in all sorts of unexpected places, and with exquisite results. They will frequently be found in the drawing and modelling of faces, limbs, or figures; in depicting muscles and suggesting anatomy; in drapery, hair, feathers, fur, flowers; in the shading of rounded surfaces generally; in studies from still life, or in purely decorative work. It will often occur that while the drawing of any of these things may have the appearance of having been rapidly executed, the individual lines are open to almost microscopic examination in their subtle power of portraying contour, modelling, reflected light, and even colour. Nevertheless the student must not expect to find all modelling carried out with the use of such lines. Such lines form part of the technique of modelling; but they are not the whole secret of modelling; neither is modelling the only consideration when we are drawing a face, a tree trunk, or a Norman capital. The face may be smooth or blotchy, pale or ruddy. The tree trunk may have peculiarities of texture or lighting, or a covering of lichen, while the stone may be weathered. Therefore it is not sufficient to think of these lines as being used with a single purpose.

So, too, in the direction of line. There are so many factors

at work, that it seems as if almost any direction could be justified. This may explain why different men depict similar objects by very different means, and it is always instructive to collect a number of similar things drawn by different men, and to compare them side by side. Take the direction of line used, say, on a coat, and compare several examples at once. Coats are, of course, of different textures and colours; they drape differently, they are lighted differently, and there are other circumstances in the original which we may not know of. The conventional treatment of the draughtsman—precisely what has been his aim; what factors he has considered of chief importance; the general effect; the importance of the coat as part of the subject—all of these may have to be searched into before we can realize why any particular direction of line is used.

The study of direction of line should be systematically carried out in its application to shading, cast shadows, texture, form, foliage, skies, cross-hatching, as well as in its use for purposes of composition and design; whilst each of these points may again be studied separately, applying the same searching methods.

With intelligent, careful study of this kind, and plenty of original work, the student will rapidly equip himself with a sound technique, with which he should be able to fill in many hours of the keenest enjoyment with his pen.

THE END.

PRINTED IN GREAT BRITAIN
BY T. NELSON AND SONS, LTD.

DATE DUE

OCT 10 1979
MAY 1 1985
OCT 22 1979
NOV 5 1979
NOV 28 2011
DEC 13 2011
OCT 2 1980
NOV 16 2012
NOV 4 1980
APR 10 2013
JUN 10
APR 04 2013
MAY 02
SEP 08 2015
APR 9 1982
NOV 17 1988
APR 29 2015
DEC 09
OCT 27 2001
NOV 2
SEP 17 2003
DEC 27 1982
AUG 27 2009
SEP 01 2009
JAN 2 1985
OCT 09 2012

DEMCO 38-297

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7/98